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The Commonwealth of Massachusetts

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ANNUAL REPORT

OF

THE TRUSTEES

OF THE

BOSTON PSYCHOPATHIC  
HOSPITAL, (General)

FOR THE

YEAR ENDING NOVEMBER 30, 1928

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DEPARTMENT OF MENTAL DISEASES



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<sup>1</sup>By arrangement with the Department of Mental Diseases.

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1928  
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## REPORT OF THE TRUSTEES BOSTON PSYCHOPATHIC HOSPITAL.

*To His Excellency the Governor, and the Honorable Council:*

This annual report gives some indication of the sound methods and sound achievement which, we feel certain from our regular visiting contacts, are representative of the work in our important hospital. Not only the Director's report but also the departmental reports are deeply informing about what is being accomplished. We commend them all to the reader.

The Director does well again and again to call attention to the many relationships of the hospital — to family life and to other social institutions. Mental abnormality has implications for the various groups and agencies in society — familial, educational, vocational, welfare, police, legal, etc. — far beyond the meaning of physical disease. Many evidences of this are constantly cropping up, and we are happy to say that the whole hospital staff is alive to the facts. The Director tells of social pressures and tensions being taken into account in their bearing on the production of unbalanced mental states and, contrariwise, his and the other reports are shot through with connotations of what there is to be done in aiding solution of the problems that mental disorder brings to family life, to courts, to schools, to welfare workers. The service of the hospital extends far beyond its work with the patient himself.

We would draw attention to the competency of the staff which is regularly attracted to the hospital by its reputation. And we regard as most remarkable the efficiency with which one executive officer after another, entering other parts of the state service, has paved the way for his successor. The training methods of the Commissioner of Mental Diseases work well.

We are most happy that the long-desired improved X-ray apparatus is being installed. Our present look into the future is largely concerned with the development of a program which will take into account the obvious difficulties arising from the structural arrangement and occasional overcrowding of those portions of the hospital where the more disturbed patients are cared for.

Respectfully submitted,

WILLIAM HEALY, *Chairman.*  
ESTHER M. ANDREWS, *Secretary.*  
ALLAN WINTER ROWE.  
WILLIAM J. SULLIVAN.

C. I. FELCH.  
CHANNING FROTHINGHAM.  
CHARLES F. ROWLEY

### DIRECTOR'S REPORT.

DECEMBER 13, 1928.

*To the Board of Trustees of the Boston Psychopathic Hospital:*

In accordance with the provision of the statutes I submit for your consideration the report for the statistical year ending September 30, 1928, and for the fiscal year ending November 30, 1928.

#### ON THE NATURE OF THE ANNUAL REPORT.

An annual report is a document of a rather special nature. As a summary of activities covering a special field, requiring fixed appropriations, utilizing a definite material and personal equipment, it is a record of work done, a formal accounting for the resources placed at one's disposal. An annual report is obviously not a place for a detailed discussion of technical medical problems such as would be appropriate for a medical journal. At the same time it seems desirable in the report to give the lay reader some insight into the nature of the work done by the hospital and to help him to visualize the concrete handicaps and difficulties in the lives of individual men and women which bring them as patients to the hospital for help. A report which merely covered the statistical data and referred in a general way to the technical activities of the hospital, while it would show that various activities were being carried on with a certain organization at definite expense under careful economic control, and would satisfy formal requirements,



might fail to do justice to the occasion if it did not clothe the statistical figures with some human facts. The annual report is a public document and it may be expected to present to the community something of the social values represented in the work of the hospital as well as the bare economic and statistical data. Unless the public in general knows something of the nature of the work done in this specialized medical field, sympathizes with it and indorses the values embodied in it, the work will fail to receive the increasing support which it requires and will remain isolated and comparatively sterile.

#### ON THE PROBLEMS PRESENTED BY THE STUDY AND CARE OF PATIENTS.

In the light of the above considerations an endeavor is made in each annual report to furnish illustrative examples of the problems dealt with at the hospital and thus give some body to the tables of statistics which are appended to the report. These examples may render more intelligible the rôle which the hospital plays in relation to the health of the community and indicate the bearing of this work on important problems of the family, the school, the court, the store and the workshop.

A. B., a lad of 19. The patient had been fretting over his failure to make good in his occupation; in his emotional preoccupation over the question of his own personal value he seemed to get a religious revelation and saw in the clouds the faces of the great heroes of American history. A careful physical examination revealed nothing to throw any light upon this special experience. In the light of a searching review of the patient's special temperament and past experiences the symptoms became at least partly intelligible as the reaction of a lad of special sensitiveness to the actual environmental stresses of his life.

C. D., a man of 54, was dominated by the belief that his wife was unfaithful; for this there seemed to be no foundation. This case was not, as in many other cases, associated with alcoholism. The analysis of a delusion of this type takes one deeply into the personality of the individual and into the rôle which sex plays in the life of the individual.

E. F., a woman of 28, was transferred from a general hospital where she had been delivered of an illegitimate child. The patient was emotionally quite unstable. The mental symptoms were not typical of any definite mental disorder but were probably closely related to the trying circumstances of her pregnancy, to her inability to establish the paternity of her child, to having to give up her child, and to a physical disorder (phlebitis in one leg). The case illustrates the complexity of the causation in many of the cases. The type of reaction was no doubt largely determined by the patient's original constitution but the actual occurrence of the breakdown was no doubt the result of the long emotional strain and of the physical disorder.

G. H., a lad of 18, was transferred from a general hospital because he had been fasting as he identified himself with Jesus. His parents, as a matter of fact, refused to see anything abnormal about the patient and insisted on taking him home after one night in the hospital; the father was of ill-balanced mentality with a marked delusional tendency.

I. J., a lad of 20, was sent from the court, where he had been taken on account of some brawl. For some years his behaviour had been somewhat unsatisfactory. The observation of the patient in the hospital showed that the conduct which had disturbed his family was due to a serious underlying mental disorder, which was related to deep-seated conflicts within himself.

K. L., a man of 31, was referred from another hospital. He had been an individual difficult to get along with for many years; recently he had felt that he was accused of sex perversions, and thought that people talked about him. The patient had been working until two months before admission but had moved from one industry to another; he represents one of the unstable industrial units which contribute to the problem of labor turnover.

M. N., a man of 61, was a diabetic who had suffered from a stroke at 48; he had become childish and excitable and was admitted to the hospital because he had threatened his relatives.

Mrs. O. P., aged 28, since birth of her last baby had suffered from headache, sleeplessness, fear of suicide and fear of harming her children. Her physical con-

dition necessitated a thorough X-ray study of the gastro-intestinal tract, which disclosed a duodenal ulcer; the otologist was consulted in regard to discharge from the ears. She left after nine days in the hospital. For the understanding of the fears of the patient the psychological approach was obviously essential.

Q. R., a man of 32, three days after an operation in general hospital for osteomyelitis, became delirious and was admitted to the Boston Psychopathic Hospital with the wound still draining. The patient became clear after two days; his wound continued to require surgical attention. He was discharged eight days after admission.

Mrs. S. T., aged 45, was admitted in a state of mild elation. For several years the patient had a large pelvic tumor, and on admission she showed some evidence of thyroid insufficiency. Although preoccupied with the tumor she refused to follow surgical advice; she had been following a great number of medical cults and fads until her admission to the hospital.

Mrs. U. V., aged 54, had been using alcohol and drugs for an unknown period. In her irritation over a lawsuit she had made threatening remarks and was sent to the hospital for examination. In the hospital the withdrawal of the drug was accomplished with little discomfort to the patient. She was later transferred to another hospital as she was too excited and unreasonable to be able to return to the community.

These very brief histories of a few patients give some indication of the complex factors which are involved in the individual case and indicate the diverse lines of investigation which must be followed. The mental disorder in each case is studied as the complex reaction of an individual to environmental demands. The reaction of the individual is determined by the efficiency of the individual organs and systems and by the constitution of the individual as modified by past experiences. The constitution is a general term which includes those elements of the personality, which are referred to as instincts and emotions, as well as less clearly outlined patterns of reaction, which are part of the endowment of the individual. To estimate the original constitution of the patient a careful review must be made of the stock from which he has sprung; the knowledge thus gained not only enables one to estimate more accurately the equipment of the individual for dealing with life and the special lines of sensitiveness for which allowance has to be made, it also furnishes valuable material in regard to the general problem of heredity. The subject of heredity is not only extremely complicated but one of very great practical importance to society. With regard to this topic there is much looseness of thought, and data of doubtful value are often used to support dubious conclusions to which may be given practical effect. Accurate data in regard to the family history of patients suffering from mental disorders are, therefore, of considerable importance; in this way one sees how accurate investigation of the individual case in the interest of the individual patient furnishes valuable material for purposes of research. Research is not necessarily a special activity carried on detached from the clinical investigation of the individual case, but is rather an attitude of mind and a method of working which is as valid in the ward as in the laboratory.

The original constitution of the individual is modified by life's experiences, and the way in which the patient has been rendered more or less vulnerable to the stresses of life by the influence of the home, the school, the social environment has to be traced. The knowledge of the special factors which may have made the patient unduly sensitive to various issues of life is often essential in order to reduce the sensitiveness of the patient and to help him to build up a greater degree of resistance. Here, too, as with regard to the analysis of the family history, the accumulation of material makes a valuable contribution to important topics of research. It throws light on the subtle factors which permeate the atmosphere of the home and of the school; it makes clearer the special factors which determine the relations of the individual to the family circle, to fellow workers, to those of the other sex. Education has much to learn from the material thus made available and it will be of great advantage to the mental hygiene of the community when the general results of studies of this nature are familiar to teachers and parents.

It was stated above that the mental disorder of the patient is studied as the reaction of the individual to the environment; it is important to realize that the



efficiency of the total organism is dependent upon the efficiency of the component organs and systems and that the environment is not merely a question of the social environment but is also one which contains various detrimental germs and other bodily risks for the individual. A patient may have come to the Boston Psychopathic Hospital on account of a change of mood, of friction with the group, of odd experiences which perplex those around him, while the underlying disturbance may be due to the simple bodily machinery being disturbed. The primary source of the disturbance may be in the central nervous system or it may lie in some other organ or system, the disturbed working of which interferes with the nutritional demands of the central nervous system.

Failure of the heart, respiratory disorders, poor functioning of the kidneys, anemia of one or other type, disturbances in the gastro-intestinal system, anomalies in the secretion of the important endocrine glands (thyroid, pituitary, etc.) may so disturb the action of the central nervous system that the emotional life of the individual is no longer the same, his general grasp of the outside world undergoes distortion and his behaviour no longer meets the needs of ordinary social life. The central nervous system itself may be the seat of structural damage; a severe head injury, causing concussion of the brain, may leave the individual a changed person; intracranial tumor may manifest itself by immoral behaviour; inflammatory processes and vascular disease within the brain may give rise to varied forms of mental disorder.

The examination of a mental patient, therefore, is not merely a question of asking the patient about those changes in mood or attitude towards life which have been in the centre of the clinical picture, it is a question of studying all the factors which make up the complex organization of the individual. It is necessary to study the simple systems and organs in the same way as those of a patient in a general hospital. It is necessary, therefore, to have the same facilities as in the general hospital for making delicate tests, chemical and microscopical, of the various fluids of the body and for supplementing the thorough bed-side examination of the physical condition of the patient with other tests which can only be carried out in suitably equipped laboratories. The gastro-intestinal tract cannot be studied without adequate X-ray facilities. The efficiency of the thyroid and the pituitary glands can only be tested by methods which involve careful chemical analysis. Several of the conditions which do damage to the brain cannot be adequately followed without careful study of the cellular content and chemical constitution of the cerebro-spinal fluid in which the central nervous system is bathed. Even in the few cases referred to above one finds reference to a variety of physical disorders — phlebitis, diabetes, cerebral softening, duodenal ulcer, middle-ear disease, osteomyelitis, pelvic tumor.

The same problems which are presented by patients who are in the hospital have to be dealt with in the Out-Patient Department. Here, too, the dual aspect of the work may be emphasized, for while the individual patient is examined and treated, at the same time the observations made on the patient furnish an extremely important material for research. The social aspect of psychiatry, which becomes so apparent during the study of any group of mental disorders, is still more striking when one considers the out-patient material, a large percentage of which consists of children under the age of 16. Children are brought for examination and for advice on account of a great variety of circumstances. A child may be brought on account of being finicky about food, on account of bed-wetting, of speech defect, or of dishonesty. It is hoped that, through the early recognition of problems in relation to conduct, the seeds of later mental disorder may be eradicated and the child may get help at a time when he is plastic and before habits get too deeply ingrained.

#### ON RESEARCH INTO THE CAUSES OF MENTAL DISORDERS.

The remarks made above have indicated the point of view prevalent in the hospital with regard to problems of research. Research is considered not as a specialized activity to be relegated to a special department, but represents an attitude of mind in the absence of which clinical work is apt to descend to a somewhat routine and perfunctory level, although in many cases it may not do so owing to the strong humanitarian and therapeutic interests of the physician. A keen interest in the many unsolved problems of psychiatry will make the study of each individual case

much more pointed and efficient than it would be had the physician no interest in research and no determination to make his contribution to our knowledge of this obscure field. The spirit of research in the hospital during the past year has been fostered by the continuation of the statistical investigation of certain problems in this field, carried on in collaboration with the Department of Vital Statistics of the Harvard School of Public Health during the past three years. The statistical elaboration of case records has raised the problem of the adequacy of these records, has brought up questions of formulation and of methods which have been of distinct benefit to the clinical work. At the end of the three years during which the research has been carried on not only has material been systematized in the way in which it must be for statistical elaboration, but the issues involved have been becoming clearer and the constant discussion has been of use in suggesting specific topics for further investigation. In such an atmosphere the junior members of the staff have had an unusually good opportunity of coming to grips with some of the most important issues in psychiatry.

In the reports of the various laboratories one finds more detailed reference to specific studies which have been carried on by different workers.

Dr. Fulstow, who has continued to be acting chief of the neuropathological laboratory, in her report summarizes the result of her work in the laboratory; through painstaking research along these lines much light has been thrown upon mental disorders especially those associated with inflammatory and degenerative conditions. It is to be regretted that in this community there should be so much difficulty in obtaining permission with regard to the necessary post-mortem examinations. The situation is very different in many institutions abroad where such an examination is looked upon as a regular procedure, where the coöperation of the laity with the medical profession in the interests of the health of the community is fully established.

Research into the underlying bodily processes in cases of mental disorders has been carried on as diligently as possible with the facilities at the disposal of the hospital. In the past few years Dr. Bowman and other workers have, in a series of communications, published the results of their studies on the subtle bodily changes which are elements in emotional states. In addition to this, Dr. Bowman has reviewed with unusual care the bodily changes in schizophrenia, the somewhat heterogeneous group of disorders which has been the main research topic of the staff for some time. The low level at which the vital processes seem to be carried on, as indicated by what is called a low metabolism rate, did not seem to be dependent upon an inadequacy of the thyroid gland.

Dr. Grabfield, in his report from the biochemical laboratory, makes reference to the special investigations which he has undertaken into this problem of a low metabolism rate, and allied questions. As one analyzes the surface symptoms of disease and tries to penetrate to the underlying mechanisms one comes down to problems dealing with the fundamental life processes; investigations in this sphere take the worker away for the time from any immediate reference to the actual clinical material where the problems have had their origin. If satisfactory progress is to be made in the study of mental disorders it is important that there should be an adequate provision for such fundamental studies on a generous scale. It may be objected that these fundamental studies, requiring a very special material and personal equipment, should be relegated to large departments of biochemistry. As a matter of fact, the workers in these latter laboratories are likely to be completely occupied with problems which have arisen in a somewhat different setting. They are not, as a rule, free to take up the special problems presented in the psychiatric field, and there seems to be no sound reason why psychiatry should not follow the problems raised in its own special field of work as far as is possible, with an equipment which it strives continually to make more adequate for its own purpose. In this way psychiatry may make incidentally its contribution to the general fund of biochemical knowledge, just as in previous decades it was the most fertile contributor to the anatomy of the brain, both gross and microscopic.

Mrs. A. G. Sanborn, during the past two years, has been at work on the gastrointestinal flora and has accumulated material which promises to give results of some interest. She is at present working on the elaboration of this material and on the preparation of her results for publication, and this material should be avail-



able in the course of the coming year. Whether further investigations along this line shall be continued will partly depend upon the availability of further funds. The research was carried on through the generosity of two private donors, in addition to special grants from the Harvard Medical School.

Dr. Solomon has continued his work, which is specially concentrated on the study and treatment of neurosyphilitic disorders, and in his report he gives an outline of the special problems which he has attacked during the past year. One of the great contributions which Dr. Solomon has made is the continuation of the treatment of neurosyphilitic patients for more than ten years, and in preserving the coöperation of individuals over this long period, and in thus maintaining them in normal working relationship with the community he has done a remarkable piece of work. Quite apart from this important contribution to our knowledge of therapeutics, Dr. Solomon has continued to investigate patiently the intimate mechanisms of the changes which are involved in the nutrition of the brain and in the composition of the fluid which surrounds it, researches which may not seem to have, at the moment, immediate practical application but which are of the type which furnishes the only sound basis upon which true scientific progress is made.

Dr. Wells in his succinct report of the activities of the psychological laboratory has compressed into brief space an account of an extremely active and fruitful year. The workers in the psychological laboratory not only are of great value in dealing with the continuing demand for psychometric estimates but have taken up under the direction of Dr. Wells systematic and fundamental analysis of many problems connected with mental tests, which have an important practical bearing. Mental tests have come to play a somewhat large rôle in relation to education and to industrial adaptation and a movement which has so much momentum is apt to be somewhat dangerous unless supervised and carefully controlled by sound scientific standards. It is gratifying to know that the work of Dr. Wells is looked upon as authoritative and that it is a serious contribution to the sane utilization of psychometric and vocational tests.

#### ON THE SOCIAL SERVICE DEPARTMENT.

In referring to the general work of the hospital emphasis has been laid upon the point of view which considers each mental disorder as a problem of the adaptation of the individual to the tests imposed by the environment. In some cases, where there is some definite physical disorder, the general social environment is unimportant although even here an environmental stress may have elicited a latent weakness and contributed to the actual mental disorder. In the ordinary organic disorder, however, the social stress and strain play a comparatively small rôle and the investigation and treatment of the case may not call for any special investigation of the environment. In a case of brain tumor, of delirium after childbirth, of hypothyroidism, the problem may frequently be dealt with adequately even though one treats the patient as a more or less isolated unit. In a great number of cases, however, the mental disorder may be totally unintelligible unless one considers carefully and in detail the stress involved in the environment, past and present. It may then be important to review very carefully the actual situation in the home, in the workshop or in the school, and the problem may be to see how an individual of a certain vulnerability, under the stress of a certain special life situation, came to react in the way which is characterized as a mental disorder. To some this seems an unprofitable line of investigation. They make the general assumption that mental diseases, having this term "disease" must necessarily be explained in the same way in which one explains a physical disease such as typhoid fever. They assume that a mental disease may have a certain independent existence within the individual and that the nature of the individual and of the situation is more or less irrelevant to the presence of the "disease." They consider that the only scientific method of approach, therefore, is to study the patient by the same methods by which one studies infectious diseases, disorders of nutrition, degenerative diseases. They may scorn an investigation into the actual life situation of the patient and into his past experiences as representing a "janitor's psychology." The detailed study of the actual evolution of many cases of mental disorder, however, seems to indicate that the environmental factors, the actual life situation, are not irrelevant to the development of the disorder, that they have to be reckoned with as one of the real causes and that in neglecting to



pay attention to them the physician may miss the key to the whole situation. While it is true that in many cases a mental disorder is symptomatic of some underlying physical ailment, the physician must be on his guard against assuming that this is a formula to be applied to every case. The physician has to remember that the categories of internal medicine, which provisionally discards any reference to the personality, may be inadequate to the study of mental disorders where the personality plays a central rôle.

The study of the environmental factors in the setting of which a mental disorder has developed may require an investigation which goes beyond the information given by the relatives who visit the patient at the hospital. The investigation may require some contact with teachers, employers, colleagues or neighbors, and the physician is rarely in a position to make this investigation personally. This investigation falls upon the personnel of the Social Service Department and without help of this type the physician may be seriously handicapped in the interpretation of his case. In order that the social service worker may make an investigation which is directed to the main issues, which interest the physician, the worker must be familiar with the general trend of the medical work and with the special problems under consideration. The coördination of the work of the social worker with that of the physician is favored by the frequent staff conferences at the hospital in which physicians, social workers, psychologists, occupational therapists and nurses are all present and have an opportunity of contributing to the discussion of individual cases, while becoming familiar with the general principles of psychiatric diagnosis and treatment. The work of the Social Service Department is, however, not merely investigative, it has also its important therapeutic aspect. The handicapped or convalescent patient may be able to return to life in the community with some supervision and with some guidance of those in touch with the patient, while without some such aid a relapse might be liable to occur. In regard to the numerous children who are studied in the Out-Patient Department, the social worker is able to do a great deal to protect or stimulate the child by keeping in touch with the teacher and the home. As a liaison officer between the medical profession with its somewhat technical language and rather rigid formulations and the general public with its haphazard and partly mediaeval attitude towards mental problems the social worker performs a very important rôle. Without her patient interpretation of the significance of psychiatric diagnosis and of the principles of treatment outlined much of the effort expended by the psychiatrist on the patient would be fruitless. Emphasis has been laid upon the nature of the work of the social worker in relation to the study and treatment of the individual case. From the point of view of research one might emphasize the fact that there is no body of social material more valuable in its totality than the material collected by social workers in the course of these intensive individual investigations. The material collected is of very great value for those who are interested in the study of the child, in the structure of the home, in the management of the sex instincts, in the sanctions of marriage, in recreational and cultural opportunities. In connection with the special investigative work being done at the hospital on the central problem of the schizophrenic conditions, it is expected that the material supplied by social service workers will be an important contribution.

#### ON THE NURSING AND OCCUPATIONAL ACTIVITIES OF THE HOSPITAL.

To the staff of the hospital it is a source of gratification to observe the interest shown by the nursing and occupational personnel in their respective activities.

There is, perhaps, no more arduous service in the nursing profession than that of caring for mental patients nor is there one which makes so many demands upon the intelligence, the sympathy and the patience of the nurse. At the same time there is no nursing task which makes a deeper appeal to the human interests of the nurse or which gives a more fascinating insight into human personality and the deeper issues of life. A few nurses may be temperamentally insensitive to some of these issues and may find a greater satisfaction in manipulative activities or in administrative or executive positions. It is gratifying, however, to observe how much interest is shown by the stream of affiliated nurses who come to the Psychopathic Hospital for a three months' period of training in this branch of nursing. The experience of the second year with this system of affiliation has confirmed the good impression made by the nurses in the first year. An affiliation

of this nature not only may lead a few more nurses to enter this special field of activity, but what is more important it will help to give the general body of nurses a correct attitude towards mental disorders and towards the personal issues even in patients suffering from the general run of somatic diseases, and a nursing body educated in these principles will have a profound influence upon the general thought of the community in regard to these matters.

The influence of the nurse in the community may be illustrated by an apparently trifling incident. A mother brought her child to the Out-Patient Department for advice with regard to a minor disorder of behaviour. She did so although her husband had a prejudice against a "mental" hospital and although she had been told by an academic lecturer of some distinction not to bring the child to the hospital because the child would always have the "stigma" attached to such an experience. When asked why she had brought the child to the hospital notwithstanding these influences she said that the district nurse, who had been giving her prenatal care, had recommended her to bring the child and she had complete confidence in the advice of the district nurse. With a community having this confidence in the nursing profession the latter evidently has the possibility of being one of the most powerful agencies in helping the community to get away from outworn and distorted theories of mental disorders. In Boston the situation is particularly satisfactory in regard to the extensive and efficient education of the community, for the great district nursing organization, the Community Health Association, is inspired by a most enlightened attitude towards these problems. During the past year there has been close contact between our Social Service Department and the Community Health Association, and there have been frequent conferences in order to determine the principles of organization and the lines of future development as well as in order to deal with individual cases.

Notwithstanding the somewhat limited accommodations at the hospital and the absence of adequate opportunity for outdoor occupations, through the skilled direction of Miss Humphrey, the maximum opportunity for occupational activity is furnished to the patients. In several communications Miss Humphrey has emphasized the general principles directing the work, the special conditions which the nature of the hospital furnishes, the relationship of the work to the general needs of the hospital, the realization by the individual patients of the immediate practical utility of the work in which they are engaged.

Notwithstanding the interest of the nursing personnel and the activity in the Occupational Department, there are periods in the day's program when certain patients have had nothing to do and practically nothing to interest them, and such periods of enforced idleness must be considered detrimental to the patients. It is, therefore, a very great advantage to have at last installed in the various wards loud-speakers so that these serious gaps in the daily program may be filled by something other than subjective phantasies and morbid ruminations.

#### ON THE HOSPITAL AS A TEACHING CENTRE.

The main function of the hospital is the care and treatment of the mentally sick and the investigation of the causes of mental disorders, with a view to their prevention and better treatment. At the same time the hospital serves as a training centre where workers of many types can be prepared for their special activities in this field.

The facilities of the hospital are available for the instruction of medical students in this branch of medicine, and even though in the brief courses available a medical student cannot be expected to get an adequate grasp of the topic, he can at least get the opportunity of seeing that mental disorders can be studied and treated on the basis of the same general principles which he is accustomed to apply in other branches of medicine.

The staff of the hospital is being continually recruited from recent graduates, some of whom may not intend to make psychiatry their career but who wish, for one reason or other, to have a first-hand acquaintance with the field of mental disorders. In addition to the members of the staff there is attached to the hospital as a rule a group of volunteer workers who come from other institutions for varying periods in order to carry on graduate studies in this branch of medicine. The graduate worker is not given systematic instruction but works with the members of the staff as a colleague, and in thus sharing in the clinical work with its



accompanying discussions and conferences he makes a contribution to the hospital, while at the same time he is becoming familiar with the point of view of the other members of the staff and getting suggestions with regard to special reading, and lines of special investigation.

In the psychological department systematic instruction is given to accredited students and where workers from other hospitals in the state require special training in psychometric methods and standards a special effort is always made to accommodate them.

In the other departments of activity which have been referred to, in the nursing, occupational and social service departments, teaching is considered to be an important function as well as treatment and research.

#### ON THE OUT-PATIENT DEPARTMENT.

In October, 1927, Dr. Taylor resigned from the position of Chief of the Out-Patient Department and Dr. O. J. Raeder was appointed to this position in January, 1928.

In the general work of the hospital the Out-Patient Department continues to play the same important rôle. It is partly the door by which many patients come into the hospital but its still more important function is to supply guidance and help to those who are still able to carry on outside and who, without the help of such consultation, would either be undergoing unnecessary distress or who would have to give up altogether. It is chiefly through the Out-Patient Department that the hospital keeps in touch with the problems of childhood and a constant stream of children is brought to the Out-Patient Department for advice with regard to the problems involved in child management. A glance at the problems presented by the patients in the Out-Patient Department as summarized in the report of Dr. Raeder gives some slight idea of the breadth of the field of mental disorders. In view of the fact that the material presented by out-patients is somewhat different in type from that presented by the patients in the hospital, each member of the staff spends some time in the Out-Patient Department so that he may become familiar with the general extent of the problems in this field of medicine and not concentrate too exclusively upon cases of such a serious nature that they have to be admitted to the hospital.

The psychological department has taken special interest in some selected out-patient problems. Not only have the psychologists continued to maintain their psychometric work at a rather unusual level of excellence, but they have taken up the problems of non-reading children and have made a special investigation of their difficulties.

Dr. Ribble, a Commonwealth Fellow in Psychiatry, has taken up specially the psychopathology of childhood and is concentrating on the investigation of certain quite specific topics.

Informal conferences in the Out-Patient Department, which are often attended by the social workers or teachers or other workers who happen to accompany patients, have been continued during the past year as they serve a useful purpose and help to prevent too strict a separation of the work of the Out-Patient Department from the general work of the hospital.

The school survey in the town of Brookline was carried through in the past year as in previous years and the far-seeing measure of the systematic review of all children seriously retarded in their class-work has now come to be a familiar experience to the teachers and will soon be looked upon by the community as a recognized and essential part of the general educational machinery. There is always some danger that an enlightened measure of this nature may arouse ill-founded suspicion or antagonism and it is satisfactory to report that the attitude of the community towards the carrying out of the school survey is one of sympathetic coöperation.

#### ON THE GENERAL ADMINISTRATION OF THE HOSPITAL.

The review of the activities of the various departments may have given some indication of the necessity for constant coördination. It is on the Chief Executive Officer that the responsibility for this coördination devolves. Not only has he to supervise carefully the finances of the hospital, look after all supplies, see that vacancies in the nursing personnel and in the household staff are filled, he has also

the direct supervision of the coördination of the medical, nursing and ancillary services and has, with his assistants, to supervise all the technical requirements regulating the admission of patients to the hospital and to deal with relatives in all the questions which arise in connection with their interest in the course and treatment of a mental disorder.

In spite of this somewhat complicated program with its varied interests and activities, it has been possible for a new Chief Executive Officer to adapt himself to the situation with remarkable speed and efficiency. Within the last twelve months there have been three Chief Executive Officers, Dr. Bonner leaving the hospital in December, 1927, after a successful administration of three years, Dr. Dexter being appointed in January and after ten strenuous months leaving to become superintendent of the Foxboro State Hospital. Dr. Arthur N. Ball was appointed on October 29, 1928, and, although at the hospital for only five weeks, presents in his report a review of the executive work. The smoothness of the running of the hospital, the standards of medical and nursing care, the freedom of the clinical workers from distracting demands, all depend upon the efficiency of the executive staff, and it is a pleasure to acknowledge the excellent service which the executive staff has consistently rendered.

During the past year, as in previous years, the atmosphere of the hospital has been one of busy medical activity with a staff seriously interested in this special medical field and working with healthy investigative interests and not merely in a routine manner.

The Board of Trustees has throughout the year maintained its customary close contact with the work of the hospital, and has always been ready to offer constructive criticism and to discuss problems of detail and of general policy.

The Director wishes to express his appreciation and that of the staff to Dr. Kline, Commissioner of Mental Diseases, for his readiness to take up promptly and sympathetically the problems brought before him and for offering helpful counsel and smoothing out many difficulties.

Respectfully submitted,

C. MACFIE CAMPBELL, *Director*.

## REPORT OF THE CHIEF MEDICAL OFFICER.

### *To the Director of the Boston Psychopathic Hospital:*

The exact organization and functioning of the medical service of a hospital of this kind is confusing to many people. The resident medical staff is composed largely of recent graduates, who are anxious to secure training in psychiatry, either to specialize in that field, or to obtain knowledge useful in other branches of medicine. The appointments are for a period of one year, but a physician may be re-appointed at the end of the year if this is desirable. The regular resident medical staff is composed of eight physicians. In addition to this there are a number of volunteer workers.

The average admission rate of the hospital is five patients per day. As the majority of these cases are sent in for a ten-day period of observation, the case must be studied intensively during the first few days in hospital. This means a careful physical and neurological examination, a thorough history and a mental status. In addition to this such laboratory tests as are indicated must be done. The X-ray report shows that 669 patients admitted during the year were given some sort of X-ray examination. All the routine laboratory tests, such as blood chemistry, basal metabolism, etc., are available if indicated. A lumbar puncture is done in a considerable number of cases as examination of the spinal fluid is frequently indicated. The Social Service Department may be requested to secure further details concerning the history of the patient. The patient's condition is then discussed at ward rounds on the 4th or 5th day following his admission: diagnosis is made and recommendations as to further treatment are given.

It may be pointed out that the criteria for diagnosis are somewhat uncertain, that the scheme of classification at present used is somewhat rigid and unsatisfactory and that while such classification is necessary, the physician's mind is not focused on classification as his main problem. Not only must the patient be studied while in hospital and a diagnosis obtained, but he must receive treatment

for his condition. A psychopathic hospital is equipped in a somewhat different manner from a general hospital. Nevertheless, it has all the problems of a general hospital to deal with. The patients who come in represent all types of physical disorders. Some of them have developed mental symptoms due to disease of the heart or kidneys, some are suffering from diabetes and require insulin treatment. The delirium of such infectious disease as pneumonia may require the patient to be cared for at this hospital. Following a surgical operation or childbirth, the patient may develop an acute mental state which requires care at this hospital. This means that the hospital must be prepared to deal with all of the problems with which the general hospital deals, besides its own specialty.

The use of hydrotherapy and occupational therapy is probably more highly developed in mental hospitals than in any other type of institution. The physician must, therefore, be familiar with these two methods of treatment and be prepared to use them.

In the treatment of general paresis, we have a special ward, where the newer methods of treatment such as malaria are employed. Each physician is assigned for one month to the department of therapeutic research of Dr. Solomon in which he receives training in the technique of lumbar punctures and various methods of treating syphilis.

The smooth and efficient functioning of a medical staff under these conditions calls for careful organization and supervision. Problems are further complicated by the use of the hospital as a teaching center for medical students, psychologists, social workers, nurses and occupational therapists.

Not only must the physician receive training in the routine care, diagnosis and treatment of mental disease, but he must be encouraged to study some of the fundamental problems involved and to undertake some piece of research. During the past year particular emphasis has been laid on the study of schizophrenia, and different members of the staff have been encouraged to undertake studies of special groups of cases. Some of the problems studied are cases diagnosed schizophrenia, which do not show delusions or hallucinations, cases diagnosed schizophrenia which have low intelligence to begin with, cases diagnosed schizophrenia which show fantastical and elaborate delusional formations, etc.

The report of the dentist follows:

Patients examined . . . . .	1,808
Patients receiving treatment . . . . .	850
Extractions . . . . .	1,082
Fillings . . . . .	490
Prophylaxis . . . . .	195
Plates . . . . .	4
Other treatments . . . . .	216

X-ray studies of 120 cases show definite infection in 46 cases, doubtful infection in 14 cases, negative in 60 cases, impacted teeth in 18 cases, doubtful impaction in 7 cases, unerupted teeth in 11 cases, impacted 4th molars in 1 case.

The new gas machine has assisted materially, enabling us to care for some patients for whom dental treatment was previously considered impossible.

The X-ray report for the year is given below:

	Males.	Females.	Total.
December . . . . .	35	13	48
January . . . . .	33	18	51
February . . . . .	41	23	64
March . . . . .	44	33	77
April . . . . .	41	22	63
May . . . . .	37	29	66
June . . . . .	33	15	48
July . . . . .	39	34	73
August . . . . .	21	10	31
September . . . . .	25	9	34
October . . . . .	44	23	67
November . . . . .	28	19	47
	<hr/> 421	<hr/> 248	<hr/> 669



At the time of this report our new X-ray machine, supplied with current from the Edison Electric Company, is being installed. Because of defects in the old machine, the number of X-rays taken, particularly during the latter part of the year, was considerably reduced. It was not possible to take good dental films with the X-ray tube available, and it was not felt desirable to spend further sums of money in adding to the equipment of the old machine when we were about to install a new one. It is expected that the coming year will see a marked increase in the number of X-rays taken.

Ward A has again been used throughout the year by Dr. Solomon in carrying on his work of the therapy on general paresis.

Ward B has been used for about eight months of the year in connection with various research studies which have been going on. The most important of these studies has been carried on by Dr. Sanborn with regard to the bacteriology of the gastro-intestinal tract in schizophrenia.

During the past year we have been more fully staffed than at any time in the past. Not only has the regular staff been completely filled but we have been compelled to reject applications of volunteer workers, because of lack of accommodations.

With the increasing number of physicians working at the hospital and the added amount of research work going on, there is the constant problem of finding room for the large number of workers who are carrying on these important studies.

We have reached the physical limits of the hospital and if additional work of research is to be done, it can only be done by increasing the size of the hospital.

KARL M. BOWMAN, *Chief Medical Officer.*

#### RESIDENT STUDENTS.

Dr. N. Joseph Berkwitz, a teaching fellow in nervous and mental diseases of the University of Minnesota, spent three months studying at the Boston Psychopathic Hospital.

Dr. O'Gorman R. Lynch, assistant superintendent of the Ontario Hospital, Brockville, Ontario, Canada, spent two and one-half months studying at the Boston Psychopathic Hospital under a special arrangement with the Canadian National Committee for Mental Hygiene.

Dr. Clifford D. Moore, of the Medfield State Hospital, spent one month studying at the Boston Psychopathic Hospital.

Dr. Isabella M. Robertson, of London, England, spent five months studying at the Boston Psychopathic Hospital.

Dr. John W. Field, of Kansas City, Missouri, spent two months studying at the Boston Psychopathic Hospital as a graduate student of the Harvard Medical School.

Dr. Bettina Warburg, of New York City, spent five months studying at the Boston Psychopathic Hospital.

Dr. Leopoldo Pardo, senior surgeon of the Philippine Health Service, spent six months studying at the Boston Psychopathic Hospital as a graduate student of the Harvard Medical School.

Dr. Catalina Policarpio Pardo, senior surgeon of the Philippine Health Service, spent two months studying at the Boston Psychopathic Hospital as a graduate student of the Harvard Medical School.

Dr. F. P. Manship, of Washington, D. C., spent three months studying at the Boston Psychopathic Hospital.

Dr. Ira M. Altschuler, of Detroit, Michigan, spent one month studying at the Boston Psychopathic Hospital as a graduate student of the Harvard Medical School.

Dr. E. D. Hatcher, of Carthage, Missouri, spent one month studying at the Boston Psychopathic Hospital as a graduate student of the Harvard Medical School.

Dr. Donald H. Linard, a fellow of the National Committee for Mental Hygiene, spent two months studying at the Boston Psychopathic Hospital.

Dr. Andrew H. Woods, professor of psychiatry at the University of Iowa, and director of the Iowa Psychopathic Hospital, spent two months studying at the Boston Psychopathic Hospital.

## CHANGES IN STAFF.

## A. RESIGNATIONS.

Dr. C. A. Bonner chief executive officer, resigned January 1, 1928.  
 Dr. Roderick B. Dexter, chief executive officer, resigned October 29, 1928.  
 Dr. O. Spurgeon English, medical interne, resigned June 1, 1928.  
 Dr. Edwin F. Gildea, assistant physician, resigned March 1, 1928.  
 Dr. Manfred Guttmacher, medical interne, resigned May 1, 1928.  
 Dr. Meta F. Haldeman, assistant neuropathologist, resigned May 22, 1928.  
 Dr. M. Ralph Kaufman, assistant physician, resigned September 1, 1928.  
 Dr. Charles H. Kimberly, senior physician, resigned September 1, 1928.  
 Dr. David Priol, assistant executive officer, resigned September 22, 1928.  
 Dr. Margaretta A. Ribble, medical interne, resigned October 1, 1928.

## B. NEW APPOINTMENTS AND PROMOTIONS.

Dr. Arthur N. Ball appointed chief executive officer October 29, 1928.  
 Dr. Gaylord P. Coon appointed assistant physician September 1, 1928.  
 Dr. Helen C. Coyle appointed medical interne September 15, 1928.  
 Dr. Leo H. Freedman appointed medical interne September 1, 1928.  
 Dr. Riley H. Guthrie appointed senior physician September 1, 1928.  
 Dr. Arnold W. Hackfield appointed medical interne September 1, 1928.  
 Dr. Douglas Noble appointed medical interne September 9, 1928.  
 Dr. Oscar J. Raeder appointed senior physician January 2, 1928.  
 Dr. S. C. Roth appointed medical interne January 25, 1928.  
 Dr. Jackson M. Thomas appointed senior physician September 1, 1928.

## REPORT OF THE OUT-PATIENT DEPARTMENT.

*To the Director of the Boston Psychopathic Hospital:*

I herewith submit the annual report of the Out-Patient Department for the year ending November 30, 1928.

The following is the list of the personnel with changes made during the year: Dr. Marianna Taylor resigned as Chief of the Out-Patient Department on October 22, 1927, and has reported since on Tuesdays as a volunteer worker. She was succeeded on January 1, 1928, by Dr. Oscar J. Raeder, the present incumbent. Dr. Charles W. Stephenson, Assistant Physician, was appointed on October 11, 1927, and resigned May 15, 1928. Dr. Mary Palmer was a daily volunteer worker from October 1, 1927, to July 2, 1928, when she was appointed Assistant Physician. Dr. Charles B. Sullivan, a member of the regular staff, attends on Tuesdays, Thursdays and Saturdays. Dr. Martin W. Peck has reported on Wednesdays. Dr. Anna M. Skinner reported on Wednesdays and Saturdays from September, 1927, to June, 1928. Dr. Henry B. Elkind reported on Wednesdays from February, 1928, to April, 1928. Dr. Henry A. Shaw reported on Fridays throughout the year, with the exception of four summer months. Dr. Oliver Cope was a student worker in the clinic November and December, 1927. Dr. Rose C. Munro reported on Thursdays from April, 1928, to July, 1928. Dr. Margaretta Ribble took charge of the school clinic with the Brookline schools during the early part of the year, and has since October been doing special work as a Commonwealth Fellow in Psychiatry.

We have felt the loss of Miss Suzie Lyons and of Miss Rising, who resigned. The coöperation of their successors, Miss Esther C. Cook, Chief of Social Service, and Miss Villa T. West, Clinic Manager, with the medical staff, has been an important factor in the success of the year's work.

The increasing number of contacts with social agencies and the public in general has been responsible in a large part for the increase in the number of patients seen during the year, — about nine per cent increase over last year.

The work of the clinic includes examination, treatment and advice given for all types of nervous and mental conditions arising in children and adults. The work with conduct problems in school children has steadily increased and a great many pupils who have become conduct problems are referred by the superintendents and others of the personnel of the public school departments of the various com-





	<i>Nationality.</i>		
	Male.	Female.	Total.
African . . . . .	11	15	26
American . . . . .	137	161	298
Armenian . . . . .	—	3	3
Austrian . . . . .	1	2	3
Belgian . . . . .	—	1	1
Canadian . . . . .	4	7	11
English . . . . .	69	60	129
Finnish . . . . .	2	1	3
French . . . . .	9	19	28
German . . . . .	4	11	15
Greek . . . . .	3	5	8
Irish . . . . .	100	79	179
Italian . . . . .	58	60	118
Jewish . . . . .	50	48	98
Lithuanian . . . . .	6	9	15
Polish . . . . .	5	6	11
Portuguese . . . . .	1	6	7
Scotch . . . . .	2	3	5
Scandinavian . . . . .	1	1	2
Spanish . . . . .	1	1	2
Swedish . . . . .	7	8	15
Syrian . . . . .	3	5	8
West Indian . . . . .	1	—	1
	<hr/> 475	<hr/> 511	<hr/> 986

	<i>Occupation.</i>		
At home . . . . .	69	189	258
Attendant . . . . .	1	—	1
Baker . . . . .	2	—	2
Barber . . . . .	1	—	1
Blacksmith . . . . .	1	—	1
Carpenter . . . . .	7	—	7
Chauffeur . . . . .	2	—	2
Chef . . . . .	2	—	2
Church worker . . . . .	—	1	1
Clergyman . . . . .	1	—	1
Contractor . . . . .	1	—	1
Dietitian . . . . .	—	1	1
Dish washer . . . . .	1	—	1
Domestic . . . . .	—	54	54
Draftsman . . . . .	2	—	2
Electrician . . . . .	3	—	3
Engineer . . . . .	3	—	3
Factory worker . . . . .	21	19	40
Farmer . . . . .	2	—	2
Fruit dealer . . . . .	2	—	2
Garage worker . . . . .	1	—	1
Gardener . . . . .	3	—	3
Hairdresser . . . . .	—	1	1
Hotel work . . . . .	1	—	1
Insurance agent . . . . .	3	—	3
Interior decorator . . . . .	1	—	1
Iron worker . . . . .	1	—	1
Janitor . . . . .	4	—	4
Jeweller . . . . .	1	—	1
Junk collector . . . . .	1	—	1
Laboratory technician . . . . .	1	—	1
Laborer . . . . .	21	—	21

	Male.	Female.	Total.
Laundry work . . . . .	1	3	4
Librarian . . . . .	—	1	1
Machinist's helper . . . . .	1	—	1
Mechanic . . . . .	10	—	10
Messenger . . . . .	2	—	2
Motorman . . . . .	1	—	1
Musician . . . . .	1	1	2
Nurse . . . . .	—	3	3
Office work . . . . .	15	22	37
Painter . . . . .	7	—	7
Paper hanger . . . . .	1	—	1
Piano teacher . . . . .	—	1	1
Plumber . . . . .	1	—	1
Policeman . . . . .	1	—	1
Printer . . . . .	1	—	1
Radio operator . . . . .	1	—	1
Sailor . . . . .	1	—	1
Salesman . . . . .	10	—	10
Saleswoman . . . . .	—	7	7
Seamstress . . . . .	—	2	2
Shipper . . . . .	4	—	4
Social worker . . . . .	1	—	1
Steamfitter . . . . .	2	—	2
Storekeeper . . . . .	1	—	1
School-child . . . . .	233	196	429
Tailor . . . . .	5	—	5
Teacher . . . . .	2	3	5
Teamster . . . . .	4	—	4
Telephone operator . . . . .	—	3	3
Theatrical work . . . . .	—	1	1
Upholsterer . . . . .	2	—	2
Utility man . . . . .	1	—	1
Waiter . . . . .	3	—	3
Waitress . . . . .	—	3	3
Watchman . . . . .	3	—	3
Woodsman . . . . .	1	—	1
	<hr/> 475	<hr/> 511	<hr/> 986

*Referred by*

Psychopathic Hospital . . . . .	16	13	29
Other hospitals . . . . .	99	84	183
Physicians . . . . .	89	81	170
Schools . . . . .	45	21	66
Social agencies . . . . .	125	242	367
Clergymen . . . . .	2	1	3
Courts . . . . .	23	3	26
Relatives and friends . . . . .	52	39	91
Own initiative . . . . .	24	27	51
	<hr/> 475	<hr/> 511	<hr/> 986

*Problems.*

Advice in regard to child training, 1; after-care (Psychopathic Hospital), 40; alcoholism, 3; conduct problem, 175; confusion, 7; court charge of assault of child, 1; court charge of nonsupport, 1; crawling sensation, 1; day dreaming, 3; depression, 36; dislike of school, 2; dizziness, 2; domestic difficulties, 13; drug addiction, 1; emotional instability, 23; epilepsy, 6; exhaustion, 9; fainting, 1; fears, 11; forgetfulness, 7; glandular difficulty, 1; headaches, 14; hydrocephalus, 1; "hypnotized", 1; hysteria, 1; ideas of persecution, 3; illegitimate pregnancy, 25; insomnia, 13; irresponsibility, 9; irritability, 5; lack of self-confidence, 1;

lack of coördination, 1; larceny, 3; loneliness, 2; masturbation, 6; nervousness, 67; "neurasthenia", 2; neurotic traits, 28; nightmares, 2; obsessive ideas, 3; odd behavior, 14; overactivity, 1; paresis (?), 2; personality problems, 3; "Psychasthenia," 1; "Psychoneurosis," 1; .

*On question of* — Ability to work, 4; ability to care for children, 2; assault by father, 1; endocrine disorder, 2; mental rating, 190; post encephalitic condition, 2; psychosis, 21.

Reading difficulty, 5; refusal to eat, 1; retardation in school, 75; self conscious, sensitive, 3; sex problem, 14; shortness of breath, 1; "spells," 5; speech difficulty, 20; suicidal, 5; somatic complaints, 15; traumatic neurosis, 1; trembling, 3; twitching, 6; vagrancy, 2; visions, 3; vocational guidance, 37; voices, 3; weakness, 1; worries, 11. Total, 986.

### *Diagnosis.*

	Male.	Female.	Total.
Senile psychosis . . . . .	—	2	2
Psychosis with arteriosclerosis . . . . .	2	3	5
General paresis . . . . .	4	3	7
Juvenile paresis . . . . .	2	—	2
Chronic alcoholic psychosis . . . . .	6	—	6
Psychosis due to drugs and other exogenous poisons (lead) . . . . .	1	—	1
Drug addiction . . . . .	2	—	2
Psychosis with other somatic disturbance . . . . .	3	5	8
After-care, toxic psychosis . . . . .	—	1	1
Puerperal psychosis . . . . .	—	1	1
Manic-depressive psychosis — Manic . . . . .	1	5	6
Manic-depressive psychosis — Depressive . . . . .	19	41	60
Manic-depressive psychosis — Mixed . . . . .	—	1	1
Schizophrenic psychoses . . . . .	22	21	43
Paranoid condition . . . . .	8	10	18
Epilepsy . . . . .	20	8	28
Psychoneurosis:			
Neurasthenic type . . . . .	10	7	17
Hysteria . . . . .	5	15	20
Anxiety type . . . . .	5	5	10
Obsessional type . . . . .	2	5	7
Compulsion neurosis . . . . .	—	2	2
Psychasthenic type . . . . .	1	3	4
Mixed type . . . . .	1	—	1
Chronic invalidism . . . . .	1	—	1
Unclassified . . . . .	25	7	32
Psychosis with psychopathic personality . . . . .	—	1	1
Psychopathic personality . . . . .	23	28	51
Psychosis with mental deficiency . . . . .	1	—	1
Undiagnosed psychosis . . . . .	15	13	28
Without psychosis — Unclassified . . . . .	—	6	6
Traumatic encephalopathy . . . . .	1	—	1
Post encephalitic condition . . . . .	2	—	2
Hemiplegia with deterioration . . . . .	—	1	1
Organic brain disease . . . . .	1	1	2
Question of organic condition . . . . .	—	1	1
Somatic disease:			
Cardiac . . . . .	1	—	1
Arthritis . . . . .	—	1	1
Arteriosclerosis . . . . .	1	—	1
Congenital lues . . . . .	1	—	1
Chorea . . . . .	2	—	2
Endocrine disorder . . . . .	—	1	1
Somnambulism . . . . .	1	—	1
Acute veronal poisoning . . . . .	1	—	1

	Male.	Female.	Total.
Homosexuality . . . . .	1	—	1
Non reader . . . . .	5	4	9
Neurotic child . . . . .	15	15	30
Conduct disorder . . . . .	54	51	105
Speech defect . . . . .	6	1	7
No nervous or mental disorder . . . . .	2	6	8
Average intelligence . . . . .	33	34	67
Superior intelligence . . . . .	9	9	18
Normal child . . . . .	17	14	31
Normal adult . . . . .	3	1	4
Mental deficiency . . . . .	62	94	156
Borderline intelligence . . . . .	22	13	35
Low normal intelligence . . . . .	35	47	82
Diagnosis deferred . . . . .	21	24	45
	<hr/> 475	<hr/> 511	<hr/> 986

*Disposition.*

Psychopathic Out-Patient Department . . . . .	317	298	615
Psychopathic Hospital . . . . .	59	52	111
General Hospital . . . . .	1	1	2
Report to Social Agency . . . . .	52	132	184
Report to School . . . . .	22	2	24
Report to Court . . . . .	9	2	11
Institution for F. M., advised . . . . .	10	17	27
Commitment to State Hospital, advised . . . . .	5	7	12
	<hr/> 475	<hr/> 511	<hr/> 986

*Visits.*

Total visits . . . . .		2,762
New patient . . . . .		1,448
Out-Patient Department . . . . .	1,348	
Syphilis Division . . . . .	<hr/> 100	
Old patients . . . . .		1,314
Clinic days . . . . .		302
Average visits per day . . . . .		9

New patients:	Visits per Month.	Old patients:	Visits per Month.
1 . . . . .	748	1 . . . . .	677
2 . . . . .	175	2 . . . . .	158
3 . . . . .	45	3 . . . . .	55
4 . . . . .	5	4 . . . . .	15
5 . . . . .	3	5 . . . . .	14
6 . . . . .	3	6 . . . . .	2
7 . . . . .	5	7 . . . . .	2
8 . . . . .	1	9 . . . . .	1
18 . . . . .	1		
	<hr/> 986		<hr/> 924



## REPORT OF BIO-CHEMICAL LABORATORY.

*To the Director of the Boston Psychopathic Hospital:*

I herewith submit my report for the year ending November 30, 1928.

A number of changes have occurred in the organization of the laboratory which should be recorded. In June, 1927, funds became available for the study of chloride metabolism in patients with fever. The Department of Therapeutic Research has patients in its ward under treatment with malaria, who of course present the opportunity for studying intermittent fever. It seemed appropriate that these patients be utilized to further work begun elsewhere. Mrs. Kubik (previously Miss Knapp) took over this work as her sole activity, under the joint direction of Dr. Solomon and Dr. Frank Fremont-Smith of the Boston City Hospital, who initiated these studies at that laboratory. In her place Miss Nancy Underhill has been appointed as Junior Chemist to cover the routine work of the hospital.

Mrs. Kubik has completed the first phase of the study of the effects of high protein diets on patients with mental disease having a low basal metabolic rate. So far, these studies have shown no variation from the older findings under these conditions. Her work occupied itself with the addition of large amounts of egg albumen on the one hand, and of similar amounts of mixed protein on the other, to individuals previously on a constant diet. Again we are unable to demonstrate any other metabolic variation in these patients with low basal metabolism. It is planned to carry further studies already begun by Mr. (now Dr.) Davenport on the specific dynamic action of protein and carbohydrate in similar patients. Experiments so far concluded seem to indicate that in this direction also, psychiatric patients with low basal metabolic rates react normally from their level. These experiments merely consist in determining over a period of four hours the percentage rise caused by the ingestion of given amounts of pure protein carbohydrate or fat. Further studies to complete this series of observations will be carried out in the coming year though the results appear to be negative.

We have further continued the estimation of blood cholesterol in the fasting state in these individuals with low basal metabolism. This blood constituent of the fatty series is of importance to the bodily economy in all probability in relation to certain vitamins. It has been stated in the past, that the figure tends to be high in patients with thyroid deficiency and low in Grave's disease. Indeed, the finding of a high blood cholesterol in nephrosis has stimulated Epstein to consider this disease as a thyroid deficiency. In the case of nephrosis also, it is associated with a low basal metabolic rate. It has all along been our contention that the low basal metabolic rate found so frequently in our patients is not concerned with thyroid function directly. If the data previously acquired in relation to blood cholesterol are correct, our findings are in accord with this hypothesis. Our blood cholesterol figures, so far, vary without any relation to the basal metabolic rate and are, for the most part, entirely within normal limits.

We have thus brought to a head, in this year, our studies on these patients with low basal metabolism; first, having established their frequency in psychiatric patients; second, having demonstrated their normal reaction to iodides, salicylates and added protein as far as their nitrogen metabolism was concerned; third, in demonstrating their normal reaction to other food stuffs as measured by the specific dynamic action they cause; and, fourth, in relation to their blood cholesterol. It seems, therefore, that we are amply justified in seeking elsewhere for the explanation of this phenomenon. As is well known, the introduction of a new method into clinical medicine causes intense enthusiasm and frequent application of it within the few years of its inception. Gradually the method sinks to its proper level as data are accumulated to show its limitations and usefulness. It is of considerable importance to point out that there is a distinct contribution of Psychiatry to Internal Medicine in the proof that a low basal metabolic rate may be due to many conditions other than hypothyroidism and that many of these conditions are, at the present time, obscure. It is important that we be not carried away with the endocrine possibility of this, and falsely assume that because the thyroid gland is responsible for 40 per cent of the fundamental rate of chemical change in the body that the other 60 per cent is likewise controlled by other glands. It seems not at all unlikely that the explanation of the rate may be found in the

central nervous system itself, although much further work must be done in order to rule out other factors.

The studies on the effect of iodides and salicylates on the nitrogen metabolism from the pharmacological point of view has been completed insofar as the facilities and type of patients in this hospital permit. These studies have been carried on over many years. It has been shown that iodides taken by mouth in small doses over a short period (3 days) cause an increase in the nitrogen excretion of the urine when the nitrogen intake is constant. The same has been shown to be true of salicylates, thus confirming older work. However, it has also been shown that the type of nitrogen excreted after the administration of these two drugs is different, that mobilized by iodides containing little or no sulphur, whereas in that mobilized by salicylates the sulphur content runs parallel to the nitrogen content of the urine, both being increased. Similarly, in the case of iodides, it has been shown that the nitrogen excreted is accompanied by a greater increase in the phosphorus excretion than is the case with salicylates. In the past year this experiment has been carried a step further to show that a continued administration of iodides in increasing doses, over a longer period (12 days) is accompanied by a continued disturbance in the nitrogen excretion. As a by-product of these studies, interesting relationships were established in accordance with the nature of the salts used in these experiments. This showed conclusively that in the case of both salicylates and iodides, potassium salts delayed the excretion of nitrogen from the kidney, whereas the sodium and lithium either did not affect it or had the opposite effect.

The plans for the coming year provide for a completion of the cholesterol and specific dynamic action studies, as well as an attack on certain other problems concerned with the metabolism in convulsive disorders. The work on iodides and salicylates is now being applied at the Peter Bent Brigham Hospital on pathological cases in an effort to throw more light on the nature of these phenomena.

The routine work of the hospital has been done, as in the past, by four student internes. Comment on this system is superfluous beyond saying that it continues to work well. For a detailed consideration of its advantages and disadvantages, the reader is referred to previous reports of this laboratory.

The staff for the past year has been as follows:

*Chemists.* — Mrs. Charles Kubik; Miss Nancy Underhill.

*Student Internes.* — Frank Davenport, June, 1925, to June, 1928; George Rafferty, September, 1927; Horace Sweet, June, 1927; Louis Sweet, October, 1927; Anthony E. Peters, June, 1928.

Publications for the past year have been as follows:

"The Action of Salicylates on the Nitrogen Metabolism." *Boston Medical and Surgical Journal*, Vol. 197, No. 24, pp. 1121-1124, December 15, 1927.

"Observations on the Effect of Prolonged Administration of Iodides on the Nitrogen Metabolism." *Journal of Pharmacology and Experimental Therapeutics*, Vol. XXXIII, No. 3, July, 1928.

"The Effect of Salicylates on the Nitrogen Metabolism with Special Reference to the Effect of the Cation of the Salt." *Journal of Pharmacology and Experimental Therapeutics*, Vol. XXXII, No. 5, March, 1928.

Respectfully submitted,

G. PHILIP GRABFIELD, M.D.,  
Chief of Bio-Chemical Laboratory.

## REPORT OF THE PSYCHOLOGICAL LABORATORY.

To the Director of the Boston Psychopathic Hospital:

The routine psychometric work has proceeded without special modification. An increasing amount of work is done with adults of superior psychometric rating, mainly with the Alpha test, as mentioned in the last report. The fundamental apparatus of psychometrics has undergone little change during the last five years, though distinct advances have been made along certain lines, notably for the pre-school period and in matters of vocational testing.



The laboratory coöperates in the material of "Psychological Abstracts," "The Psychological Index," and the "Child Development Abstracts." A number of reviews of psychological and medical books have been contributed to psychological journals through the writer, by members of the medical staff. As a member of the Division of Psychology and Anthropology of the National Research Council the writer participated in the Carlisle conference of experimental psychologists and has been occupied with various committee assignments growing out of this relationship.

The calls made upon the laboratory evince a growing concern for psychometrics in the community. A considerable part of the writer's time has now to be spent in conferences with persons interested in careers in this field, or in various applications of the techniques. Requests for such assistance, voluntary or compensated, are from time to time received from various institutions, and the laboratory's acquaintance with persons interested makes it commonly possible to meet these. The usual facilities in respect to training, etc., have been extended to other institutions under the Department of Mental Diseases.

Congestion of laboratory space makes it impossible to carry on work requiring elaborate equipment even conceding time and personnel from other interests. It has accordingly seemed unwise to make at present any special additions to the technical equipment of the laboratory. Improvements have been made in the furnishings, and the needs in this respect are fairly well met.

Certain research projects have been carried on in coöperation with other institutions. A series of scatter diagrams has been prepared illustrating various properties and interrelations of important psychometric methods. These have been made in form for blue-printing to make them generally available. Further work on the more basic properties of psychometric methods is in progress with reference to problems of functional transfer, and the effect of practice on individual differences. The indubitable fact of such transfer within limits, has led to study of the precise nature of these limits and the possibility of using certain psychometric methods reeducationally or even educationally. A case of memory defect of obscure origin is now being worked with intensively from this standpoint. The laboratory continues its close relationship with the Department of Human Engineering of the General Electric Company and is at present coöperating with them on means to increase the reliability of certain vocational tests.

From the standpoint of research by officers and students in the laboratory, Miss Z. A. Rosen has prepared a report on the interrelations of Stanford, Memory and Performance scales as used in the laboratory, working largely under the supervision of Miss Kendall. Miss Kendall also continued her work on the interrelations of the Stanford and Alpha scales. Mr. Brush completed two minor studies, one on substitute weights for the Stanford-Binet weight test, another on time estimates during sleep. Miss Hatfield completed her doctoral dissertation receiving the degree from Cornell. Mr. A. L. Miller coöperated in a further standardization of the Kent-Rosanoff Association Test, and in a study of the short-answer method as applied to examinations in psychiatry. Mr. Brush, Miss Kendall and Mr. Young have also been specially interested in the non-reader problems that come to the laboratory's attention.

In view of the long continued difficulties with regard to secretarial help, note is to be made of the very satisfactory situation now existing in this respect.

As to changes in the staff, Mr. C. H. Johnson resigned as interne March 1, 1928, and is continuing in psychometric work at the Boston Y. M. C. A. Mr. R. A. Young came to the position vacated by Mr. Johnson. Miss Barbara Kendall resigned June 9, 1928, to take up psychological work with the Children's Center at St. Louis. Dr. L. M. Hatfield resigned September 1, 1928, to teach in the University of Illinois and Mr. Brush on the same date to teach in the University of Maine. Dr. Hatfield was succeeded by Miss Wilda Rosebrook of the Michigan Home and Training School, Lapeer, Michigan; and Mr. R. A. Young who had been psychometrist since the resignation of Miss Kendall assumed the duties vacated by Mr. Brush. The former position was then taken over by Mrs. E. C. Whitman, previously connected with this laboratory in various capacities.

Publications have been as follows:

- Wells, Dr. "Values in Social Psychology." From "The Unconscious: A Symposium." Alfred A. Knopf.
- Wells, Dr. A Review of E. Miller. "Types of Mind and Body." *The Personnel Journal*.
- Wells, Dr. "Psychogenic Factors in Emergentism and Allied Views." *Journal of Philosophy*.
- Wells, Dr. "The Psychometric Factor in Medical Problems." *American Journal of Psychiatry*.
- Wells, Dr. Review of J. B. Watson's "The Psychological Care of Infant and Child." *The Saturday Review of Books and Literature*.

Book reviews and abstracts communicated by members of the medical staff under 16 titles to *American Journal of Psychology*, *Psychological Bulletin*, *The Nation's Health*, *Psychological Abstracts*. Abstracts of Periodical Literature by members of the laboratory staff, 160 titles. *Psychological Abstracts*.

F. L. WELLS,  
Chief of Psychological Laboratory.

## REPORT OF NEUROPATHOLOGICAL LABORATORY.

*To the Director of the Boston Psychopathic Hospital:*

The following is the report of the pathological work of the Hospital during the year ending November 30, 1928.

The Pathologist to the Department of Mental Diseases has as usual been in charge of the laboratory. In the absence of the writer for seven months in Europe, her predecessor Dr. Myrtelle M. Canavan ably managed the work.

There were 63 deaths and of these 10 were autopsied at the hospital, 16 more passed into the hands of the Medical Examiner and post mortem examinations were made by him. This makes the total autopsy percentage 41.2. The number of Medical Examiner's cases is unusually large this year. The majority of these became medico-legal because of alcoholism.

The Hospital has not many autopsies, but the nature of the cases makes it advisable that the body organs and the central nervous system both be examined for microscopic changes. This, of course, necessitates a large amount of technical work and microscopic study, and warrants in my opinion a part-time Assistant Pathologist as was formerly customary in this hospital. It would be desirable to have someone in this position who has had some neuropathological training and requires, therefore, no supervision.

The autopsies, though not numerous, could be looked after more satisfactorily if the post mortem time could be shortened. It is unfortunate that the average time elapsing before a case is autopsied in the Hospital is between 10 and 11 hours, whereas in one of the other state hospitals over 30 miles distant, the time is between 9 and 10 hours. When one considers that it takes one and one-half to two hours from the Boston Psychopathic Hospital to this hospital by train and slightly less by automobile the difference seems notable. It is always desirable to have tissues as fresh as possible for microscopic examinations, but in order to make satisfactory preparations for the study of neuroglia it is even more necessary to have specimens fixed as soon after death as possible as the oligodendroglia, for example, undergoes post mortem changes very rapidly.

Of the cases autopsied at the hospital four deaths were due to acute infections, two were due to brain tumor. One of these was of an unusual type — a carcinoma of the choroid plexus. One peculiar type of constricting ulcer of the intestine, which was thought at autopsy to be tuberculous, was found on microscopic examination to be an adenoma. One death was due to metastatic carcinoma. These cases make the percentage of deaths due to new growth unusually high this past year and the general pathology found was more interesting than that in the central nervous system with the exception of the two brain tumor cases.

Three members of the Clinical Staff have expressed their wish to do some work in the Laboratory, but the number of clinical cases is such that time for laboratory work is hardly to be hoped for.



Paul E. Tivnan, the bacteriological interne, reports the following work done for the wards of the Hospital: — Blood cultures, 24; throat cultures, 12; spinal fluid cultures, 1; stool cultures, 2; miscellaneous, 8; smears, 7; widals, 6; sputum examinations, 1; dark field examinations, 1.

MARJORIE FULSTOW,  
*Acting Chief of Neuropathological Laboratory.*

## REPORT OF THE DEPARTMENT OF THERAPEUTIC RESEARCH.

*To the Director of the Boston Psychopathic Hospital:*

During the year just past the treatment of cases of neurosyphilis has been continued without any important change from that of the previous year; that is, the chief reliance in the treatment of these cases has been placed on tryparsamide and febrile methods. The use of tryparsamide in this clinic dates from June, 1923, and of malaria from February, 1924. Thus a period of five and four and one-half years respectively has transpired during which these methods have been used rather extensively. It is therefore possible to analyze the experience as to the effect of the type of treatment now being used. It may be stated rather emphatically that considerable improvement and apparent arrest of the parietic process occur. These methods are very superior to the previous treatments which were intensively and extensively used in this clinic during the preceding ten years. Further experience has corroborated the statement made in the Annual Report of the previous year that about one third of the cases treated made good and continued improvements. While this is extremely encouraging it is by no means entirely satisfactory and one hopes for and tries to find methods that will give a still better percentage of good results. Without any major change in principle of treatment there is a probability that better results may be obtained by an improvement in the technique or methods of procedure. Questions to be answered are whether larger doses of tryparsamide, two or more courses of fever, or a combination of fever and tryparsamide will lead to greater success. These questions are being studied and experience in the next few years will answer them at least in part.

During the last two years a considerable portion of the patients receiving febrile treatment have had air injected into the ventricles of the brain for the purpose of determining their size by X-ray studies, in an endeavor to learn if one can draw any prognostic conclusions therefrom. The study of the ventriculograms would seem to indicate the amount of brain atrophy that has occurred. A preliminary analysis shows that although there are marked differences in the sizes of the ventricles of different cases, and therefore, one concludes, a difference in the amount of atrophy that has occurred, yet it does not seem to follow that the best results are obtained in the cases with small ventricles nor that the poorest results are always obtained in the cases with large ventricles. This failure to find a definite correlation between size of ventricles and outcome of treatment is similar to the failure that is found in the use of other data in drawing prognostic conclusions. Thus the degree of apparent deterioration, the duration of the psychosis, the age of the patient, or the period of existence of syphilis are untrustworthy guides. It is further apparent that the size of the ventricles does not correlate with the duration of the psychosis. Further study is needed however to draw precise conclusions and this study is being continued.

In the previous report it was noted that psychometric examinations at various intervals are made on the patients who are undergoing treatment in order to have a measurement of results that is relatively free from the fault of the individual interpretation, or otherwise stated in order to remove the personal equation as far as is possible. A study of the data so far acquired shows that in many instances there is a very marked increase in the intelligence quotient as obtained before and after treatment. This has a considerable bearing on the matter of so called dementia or deterioration in the organic psychoses, and will form a basis for a rather detailed study of the problem of dementia. It is interesting to note that the improvement in intelligence as indicated by psychometric examinations is not by any means an invariable indicator of an improved social adaptability. Thus we have patients who, despite a marked increase in the intelligence rating, have been unable to resume their places in the community and have needed continued

hospitalization, whereas on the other hand patients who have shown no improvement, or indeed in some cases have shown an actual deterioration psychometrically measured, have been able to return to their homes and take up their former occupations and have become self-supporting. These data are being carefully compiled and results will be published in the future.

The work with febrile therapy has been subsidized in part by a grant of money from the Division of Mental Hygiene of the Massachusetts Department of Mental Diseases. Through the courtesy of Merck and Company we have continued to receive tryparsamide for use in our clinic free of all charge. The De Lamar Mobile Research Fund of the Harvard Medical School has granted us financial aid in a study of the salt and water metabolism in fevers. It has thus been possible to study the effect of malarial fever on the salt and water balance in our patients. This work has been largely directed by Dr. Frank Fremont-Smith of the Department of Neuropathology of the Harvard Medical School. Mrs. Emily Kubik has been employed to carry on the technical procedures of this work, which it is expected will be completed about February 1, 1929.

The routine work of examination and treatment has been continued without any material or outstanding changes during the year and the number of patients dealt with has been almost the same as that of the preceding year. There has been no change in the personnel during the current year.

#### PUBLICATIONS FROM THE DEPARTMENT.

Solomon, H. C. "What Causes Mental Diseases?" *Hygeia*, July-August, 1928.

Solomon, H. C., and Berk, Arthur. "Prolonged Treatment in Neurosyphilis." *American Journal of Syphilis*, November, 1928.

Lyday, June F., and Solomon, Maida H. "The Problem of the Supply of Psychiatric Social Workers for State Hospitals." *American Journal of Psychiatry*, Vol. VII, No. 4, January, 1928.

Solomon, Maida H. "Social Work and Syphilis." *The Commonwealth*, Vol. 15, No. 3, July-August-September, 1928.

H. C. SOLOMON,  
Chief of Therapeutic Research.

#### STATISTICS OF SYPHILIS SERVICE.

OCTOBER, 1927 — SEPTEMBER, 1928.

	New.	Old.	Total.
House cases . . . . .	188	15	203
Number of persons who reported to Out-Patient Service (patients and relatives) . . . . .	154	173	327
Visits made by 419 persons.			
Number of cases who reported for treatment (new and first time this year) . . . . .			191

Treatments given House and Out-Patients (new and relatives):

Arsphenamine . . . . .	353	Neoarsphenamine . . . . .	223
Bismuth . . . . .	116	Sodoku . . . . .	29
Drainage . . . . .	4	Sulpharsphenamine . . . . .	1
Intraspinal . . . . .	2	Tabetic training . . . . .	44
Malaria . . . . .	45	Tryparsamide . . . . .	2,361
Mercury . . . . .	165	Typhoid vaccine . . . . .	49
Ventriculographies . . . . .	17		

Percentage of families followed who were examined . . . . .	83.58
Percentage of relatives followed who were examined . . . . .	63.49
Percentage of families examined showing evidence of syphilis . . . . .	11.11
Percentage of relatives examined showing evidence of syphilis . . . . .	9.73

## REPORT OF THE CHIEF EXECUTIVE OFFICER.

*To the Director of the Boston Psychopathic Hospital:*

The position of Chief Executive Officer has been filled by three different men during the year covered by this report. Dr. Clarence A. Bonner, now Superintendent at Danvers State Hospital, resigned December 26, 1927, and his successor, Dr. Roderick B. Dexter, now Superintendent at Foxborough State Hospital, resigned October 29, 1928. To the wisdom and tireless efforts of these two is due the full credit for an executive organization that leaves little to be desired.

In addition to the regular routine of executive work, much has been done by way of repairs and betterments during the past year.

The grounds have been improved by the addition of several new posts and extensive repairs to the iron fence at a cost of \$1,315.65. Shrubbery has been thoroughly pruned and is now much more attractive in appearance.

The sum of \$245.25 has been expended for general roofing repairs.

The sum of \$2,265 has been expended for the replacement of six iron risers by brass piping. It is hoped that in the near future all of the original cold water iron plumbing can be replaced with brass. The original plumbing had become so occluded with rust and debris that in many cases there was insufficient water pressure for the flushing of the toilets.

The sum of \$1,620 has been expended for inside painting.

The sum of approximately \$5,520 has been expended for the installation of new X-ray equipment that is about to be put into operation.

A new Electrocall Paging System has just been installed throughout the hospital at a cost of \$707.30.

A radio set with loud speakers in all of the wards and in the Occupational Therapy Department is now in process of installation and should be in operation before Christmas.

New ward equipment comprising adjustable beds, crib beds, bedside tables, screens, reclining chairs, and a wheel chair, at an approximate cost of \$375 has just been purchased.

New office equipment comprising three typewriter desks, four typewriters, two bookcases, forty transfer files, and one dictaphone machine, at an approximate cost of \$685 has been purchased and is now in use.

New laboratory equipment and clinical instruments have been purchased at an approximate expense of \$585.

The turnover in permanent personnel has been light and nearly a full quota has been maintained during the year.

The problem of feeding in a satisfactory manner, with a minimum of waste, is a vexatious one. There is often a variation of 10 per cent from day to day in the patient population, and of more importance perhaps is the marked daily variation in the food requirements for the wards depending upon the relative physical condition of the patients on any given day. Attempts under the present system of feeding to reduce the issue of food to a point where waste is reduced to a desired minimum, have invariably resulted in under nutrition of patients. It would seem advisable that careful study be given to the cafeteria system of feeding for both patients and employees as a means of greatly reducing waste and serving a greater variety of food in a more palatable form.

The care of acutely disturbed patients is one of the most important problems of the hospital and continues to receive detailed study.

Respectfully submitted,

ARTHUR N. BAILL, M.D.

*Chief Executive Officer.*

## REPORT OF THE SOCIAL SERVICE DEPARTMENT.

*To the Director of the Boston Psychopathic Hospital:*

I hereby present the report for the Social Service Department for the year, December 1, 1927, to November 30, 1928.

Three members of the staff have resigned during the year, two because of ill health: namely, Miss Suzie L. Lyons, who had been in charge of the department for over seven years, and Miss Carolyn E. Rising, who had been manager of the



Out-Patient Department for over two years. Miss Florence Gilpin, an assistant in social work, found it necessary to leave so that she could be with relatives in another city.

Miss Villa T. West, a graduate of the Simmons School of Social Work, is the Out-Patient manager.

Miss Ethel Goodwin, graduate of Brown University and formerly an assistant in social work at Taunton State Hospital, has taken Miss Gilpin's place, while Miss Ethel Gleason, a graduate of the Summer Institute held by the Simmons College School of Social Work, occupies a vacancy which had been existent for many months.

Despite the many changes in staff the work of the department has proceeded along the lines laid down by the previous staff. Cases are referred for the same reasons as before, for example, a detailed investigation is desired in the case of patients who have been sent in by the courts for a report on their mental state, or in other cases because there is no informant to come to the hospital, or because there is a discrepancy in the information obtained from the patient and relatives. As a majority of the cases referred are in the hospital for only a ten-day period, investigations have to be carried on very rapidly. Instead of waiting for the ward physicians to refer the court cases, social service now reviews the daily admissions, selects these cases and begins work at once. Frequently cases are sent on to other State hospitals before the investigation is completed and it is necessary for the Social Service Department in the State hospital to go on gathering history. Every effort is being made by this department to send on whatever material it has which will be of value to the other departments.

Several meetings have been held with community social service organizations regarding matters of interrelationship. Policies have been worked out which should result in a higher degree of efficiency in the handling of the cases.

Because of the addition to the staff of several special students and volunteer workers it has been possible to release one of the regular staff workers for the annual school survey. This is always an interesting project as many social service problems are uncovered which throw light on the reason why the child is not progressing in school. In the case of non-readers especially has the social worker been of value in explaining to the parents that the child has a special disability instead of a general defect.

The department has contributed to studies being made regarding the personality make-up of schizophrenic cases by obtaining detailed histories from informants unable to come to the hospital.

Contributions have again been received from the Junior Red Cross, the Junior League and The South Friendly Society of the First Unitarian Church, and other interested individuals.

Respectfully submitted,

ESTHER C. COOK,  
*Head Social Worker.*

#### SOCIAL SERVICE STAFF.

Suzie L. Lyons, head social worker, February 15, 1921. Resigned, June 16, 1928.  
Carolyn E. Rising, assistant in social service, December 21, 1925. Resigned, June 30, 1928.

Florence Gilpin, assistant in social service, July 15, 1926. Resigned, June 2, 1928.  
Dorothy L. Whittaker, syphilis follow-up worker, September 26, 1927.  
Ethel L. Gleason, assistant social worker, June 11, 1928.

Villa T. West, assistant social worker, June 11, 1928.

Esther C. Cook, assistant social worker, April 16, 1928. Resigned, June 30, 1928.  
Esther C. Cook, head social worker, July 1, 1928.

## SOCIAL SERVICE STATISTICS.

OCTOBER 1, 1927, TO SEPTEMBER 30, 1928.

1. New cases	447
Adult (Male, 133; Female, 103)	236
Minor (Male, 139; Female, 72)	211
Over one third of these were court cases.	
2. Sources of New Cases:	
(No case is considered unless referred by staff physician.)	
House (16% of House admissions)	293
Out-Patient (14% of Out-Patient admissions)	152
Jail Cases (cases examined at Jail, not committed to Hospital)	13
3. Purpose for which New Cases are Considered:	
Medical-Social and Environmental Investigations	434
Special investigation (Jail cases)	13
4. Nature of Social Service Rendered in New Cases:	
Treatment (case work, history taking, aid of family, rehabilitation and adjustment of patient to community life)	294
Supervision (follow-up of patients in community)	73
Special investigation	44
Slight service	12
5. Visits	5,028
To patients and relatives in Hospital (all house cases are visited on ward before and during investigation)	1,933
To patients or in the interest of patients in community (courts, employers, hospitals, teachers, etc.)	3,095
6. Closed Cases (Social problems involved in closed cases):	
Personal	436
Family	228
Community	199
7. Housing Conditions (every possible effort is made to bring back to physician accurate picture of setting from which patient is committed):	
Good	111
Fair	154
Bad	106
Not visited	57
8. Technical Work (including Syphilis Service):	
Telephone (necessary because insufficient time to make personal visits)	5,608
(In, 2,044; Out, 3,564.)	
Letters	2,617
9. Expense	\$417.86

## OUTSTANDING SOCIAL PROBLEMS.

Mental disorder, 175	Remarriage of mother, 1
Mental defect, 55	Industrial maladjustment, 41
Syphilis, 18	Lack of social contacts and recreational program, 123
Alcoholism, 49	Auto-erotism, 8
Lying, 40	Lack of sex education, 5
Stealing, 25	Court record, 13
Poor environment, 93	Indecent exposure, 5
Sex delinquency, 51	Breaking of probation, 4
Poor heredity, 54	Seclusiveness, 26
Temper tantrums, 27	Unintelligent mother, 2
Physical disorder, 12	Atypical personality, 8
Marital maladjustment, 19	Non-support of family, 1
School maladjustment, 54	Abusive husband, 2
Nervous and delicate mother, 5	Chorea, 2
Divorcee, 3	Speech defect, 5
Death of mother, 5	Meagre education, 11
Remarriage of father, 1	

No trade, 7  
 Unfortunate love affair, 2  
 Financial difficulties, 30  
 Anti-social habits, 22  
 Vacillating interests, 8  
 Conduct disorder, 31  
 Alcoholic parents, 6  
 Lack of early training, 14  
 Maladjustment in home, 81  
 Fugues, 7  
 Low-grade parents, 2  
 Friendlessness, 2  
 Unemployment, 13  
 Loneliness, 5  
 Bad companions, 30  
 Irritability, 17  
 Physical illness, 6  
 Legal difficulties, 37  
 Indecent assault, 2  
 Stubborn child, 3  
 Idle and disorderly conduct, 5  
 Sex perversion, 4  
 Illegitimate pregnancy, 3  
 Cruelty of parents, 5

Anti-social habits, 9  
 Drug addiction, 5  
 Truancy, 12  
 Prostitution, 11  
 Promiscuity, 5  
 Neurotic child, 18  
 Immorality, 4  
 Neglect of children, 4  
 Sensitiveness, 7  
 Unstable personality, 8  
 Forced marriage, 2  
 Epilepsy, 3  
 Forgery, 2  
 Jealousy, 7  
 Gambling, 1  
 Marital difficulties, 12  
 Dependency, 4  
 Voluntary unemployment, 6  
 Separation from children, 4  
 Over-indulgent parents, 9  
 Poor home hygiene, 17  
 Illiteracy, 5  
 Delinquency, 10  
 White mother and colored father, 1

#### ADJUSTMENTS.

Hospital care, 197  
 Institutional care, 36  
 Financial help, 45  
 Legal assistance, 44  
 Improved home hygiene, 114  
 Coöperation of other agencies, 57  
 Home adjustment, 124  
 Reeducation of parents, 91  
 Industrial adjustment, 53  
 Recreational program, 120  
 Coöperation of priests and clergymen, 22  
 Supervision in the community, 21  
 Return to court, 46  
 Removed to another community, 3  
 Discharged to private physician, 4

School adjustment, 68  
 Industrial adjustment, 25  
 Physical treatment, 7  
 Coöperation of family, 66  
 Coöperation of friends, 46  
 Special training, 32  
 Foster home, 6  
 Employment, 11  
 Vocational training, 1  
 Psychotherapy, 2  
 Sent to camp, 8  
 Special training, 32  
 Foster home, 6  
 Employment, 11  
 Vocational training, 1

#### REPORT OF THE PRINCIPAL OF THE SCHOOL OF NURSING.

*To the Director of the Boston Psychopathic Hospital:*

I herewith present the annual report of the Nursing Department for the year ending November 30, 1928.

*On Nursing Service:* Principal of the School of Nursing, 1; assistant principal, 1; nurse instructor (full time), 1; female supervisor (night), 1; male supervisor (day), 1; assistant supervisors, 2; head nurse, operating room, 1; head nurses, wards, 7; assistant head nurses, 2; student nurses, 12; female attendants, 8; male attendants, 14.

*Head Nurses resigned:* Miss Mary Dardis, Mrs. Caroline Cooper, and Miss Evelyn Wright.

*Head Nurses appointed:* Miss Olia Butler; Miss Caroline Slade, a graduate of the Waltham Hospital, and Miss Margaret Davis, a graduate of the Cambridge Hospital. Both these nurses have taken the affiliated course here.

During the year 45 affiliated students completed the course.

*Special Nursing:* Number of special nurses, 26. Total number of weeks in wards, 48.

In May of this year the Waltham Hospital withdrew affiliation because of the shortage of nurses in their own hospital.



The Beth Israel Hospital sent two extra nurses for affiliation during the summer and was glad of the opportunity, as the demand for this course by the students exceeded the number we were able to accommodate.

November first we started an affiliated course in psychiatric nursing with the New England Deaconess Hospital. This hospital has agreed to send us two student nurses every three months.

Three more accredited general hospitals have expressed the desire to send their student nurses here for an affiliated course, but we are unable to consider it, because of the lack of accommodation. This seems to be the only drawback in increasing affiliation, as we need more nurses. The advantage of having pupil nurses from general hospitals in a psychopathic hospital has been demonstrated on the wards by the way the student nurses have adapted themselves to the work and by their tact and judgment manifested in handling difficult cases, as well as the care given the physically ill patients, which number far exceeded those of previous years, especially in the female receiving ward.

In closing I wish to express my appreciation to all for their coöperation and support during the year.

Respectfully submitted,

MARY FITZGERALD,

*Principal of the School of Nursing.*

## REPORT OF THE OCCUPATIONAL THERAPY DEPARTMENT.

### *To the Director of the Boston Psychopathic Hospital:*

The work of the occupational therapy department has been carried on without any outstanding changes. At present we receive into the occupational center all patients who are well enough to leave their wards. By making use of the porches and sun parlor we are sometimes able to care for a type of patient who is not yet ready to concentrate upon work, but who, nevertheless, may profit greatly from the stimulus furnished by coming from the ward into the department.

The work for the women patients seems to be on a satisfactory basis. On the whole they are very appreciative of the privileges of the department and we feel that they receive much profit from a therapeutic standpoint as well as pleasure. The work with the men is more difficult to adjust satisfactorily. This is partly because, on the whole, they seem to be more transient in their stay, and also because of certain apparently unavoidable distracting interests. However, in many cases the work is greatly needed and good results are secured. We do feel that we have not been able to arrange a proper schedule for the children who are from time to time received into the hospital. These children are so varied in their needs that with our limited facilities it has been almost impossible to arrange an adequate program for them. For many of them it would be helpful if some sort of regular academic instruction could be provided, but their condition and length of stay are so uncertain that anything of the sort would be difficult to arrange. However, the number of children admitted is not large enough to render the situation acute at present.

An estimate of the articles produced in the department has been recently made and the value set at \$686.80. We try constantly to keep in touch with the needs of the wards and to do the best we can to meet the demand for curtains, rugs, table covers, cushions, and various other furnishings. From the point of view of the occupational therapist the principal value in this production is the great variety of kinds of work which can be provided for the patients. It is not possible or desirable to run a department of this type on a basis of standardized production; the work must be planned so that it will be flexible, and as far as possible, provide occupation for many types. We have to provide for the dull and deteriorated, the patient with poor eyesight or poor motor control, the excited patient, the irritable and obstinate, the depressed, and the retarded cases who block at the slightest necessity for decision. All these must be considered as well as the patient who works practically normally, and sometimes those with superior ability. Furthermore, a patient must feel that the thing he is doing has value of some sort. Even a deteriorated patient is often quick to resent it if he feels that the thing he is doing is provided merely to keep him busy and has no further significance.

The worker has the double task of keeping first in her own mind the value which she hopes the patient will receive and at the same time of planning work which shall be intrinsically of sufficient value to command the coöperation of the worker. There is a certain respect for human labor which an occupational therapist comes to feel. In a situation of this sort the work of furnishing the wards seems in many ways the best solution of the problem which can be found. When the patients ask, as they frequently do, what becomes of the things made in the department, it is always a satisfactory answer to call their attention to the furnishings in use about the hospital which were made in the department.

When a department is run on this basis there is one thing which must be taken into consideration. The department is not able to finance itself directly or to have a cash income as is the case with departments which are run on sales. Its expense must largely be a part of the general budget of the hospital. However, when the value of the goods produced is credited to it, the department will turn back to the hospital considerably more than the value of the materials used. When running on this basis it is usually necessary to be satisfied with simpler and less expensive materials, but it is not difficult to make the adjustments necessary to meet this requirement.

Besides the patients who can be interested in the general work of the department there is another type of patient to whom an appeal can be made only on personal grounds. Such a patient can often be stimulated to interest by arousing a desire to make gifts for a relative at home. Sometimes activity can best be aroused by this desire for contact with friends. To meet this need it is almost essential that the operation of the department should be flexible enough to permit of the purchase by the patient of the article he has made at approximately the cost of the material. With this outlet added to the regular work of the department the questions of the types of work to be done and the disposal of products are very largely solved.

During this year we have tried to give more attention to the needs of the affiliated student nurses.

A lecture has been given to each group explaining something of the theory of occupational therapy and showing the way in which occupational therapy can be of use to the nurse. Each student is also received into the department for two weeks' training in order to give her the opportunity of participating in the occupational activities of the hospital. The time is very short, but we hope to accomplish several things even with this limitation.

1. We try to have the nurse get a general understanding of what occupational therapy means and of what the worker is trying to accomplish. In order to have effective coöperation between the nursing staff and the occupational therapy worker it is necessary that each should understand something of the ideals, also of the difficulties of the other.

2. We hope to emphasize the responsibility of the nurse for the morale of the patient. In the Occupational Therapy Department the nurse cannot help realizing that she must deal not simply with the bodily needs of the patient but with the patient as a personality.

3. We try as far as possible to give a little experience in actual crafts which may be of use in the occupation of the convalescent. The nurse may well find herself in a situation where even the slight knowledge of basketry and weaving which we are able to give, will be of considerable value, and of still more value will it be if she has an idea of the way in which it is possible to adapt any occupation which may be at hand to the patient's advantage.

We have continued our supervision of recreation for the patients. It has been felt that the small informal evening parties which have been held in the sun-parlor of the department have proved to be very successful from the standpoint of the patient. We make games of various sorts a feature of these parties so as to arouse a group interest and in order to furnish a stimulus for those who do not join in other activities. These parties have been kept very simple involving little work and slight expense and yet they furnish a considerable social outlet for the patients. Besides these small parties we have occasional dances in the assembly hall for which we make more preparation and which are participated in quite generally by both patients and employees.



During the year we have had a fair allowance of supplies and at the end of the year we were glad to receive as equipment an additional work bench for wood work and also a small jig saw.

The department owes much to the loyal and efficient work of Miss Dorothy Hayden, assistant therapist. Much of the stability of the department is due to her continued service.

The statistics of the department are as follows:

Total number of articles produced, 34,670.

Forms printed, 22,300.

Average daily attendance, 40. Women, 21; Men, 19.

Enrolment for year, Women, 503; Men, 621.

Respectfully submitted,

ETHELWYN F. HUMPHREY,  
Head Occupational Therapist.

#### PUBLICATIONS FROM THE CLINICAL SERVICE AND LABORATORIES.

Bowman, K. M. "The Mental Hygiene of Adolescence." *The Jewish Advocate*, February 9, 1928.

Bowman, K. M. "Schizophrenia." Volume 5 of the *Association for Research in Nervous and Mental Disease*, Chapter XVI—"Endocrine and Biochemical Studies in Schizophrenia."

Bowman, K. M. "Medical and Social Study of One Hundred Cases Referred by the Courts to the Boston Psychopathic Hospital." *Mental Hygiene*.

Bowman, K. M. "Factors Determining the Development of Natural and Unnatural Habit Movements." *Dental Cosmos*, January, 1928.

Campbell, C. M. "The Prevention of Mental and Nervous Disorders." *The Canada Lancet and Practitioner*, Toronto, February, 1928.

Campbell, C. M. "Some Problems of the Functional Psychoses." *American Journal of Psychiatry*, Vol. VII, No. 6, May, 1928.

Campbell, C. M. "Crime and Punishment, from the Point of View of the Psychopathologist." *Journal of the American Institute of Criminal Law and Criminology*, Vol. XIX, No. 2, Part 1, p. 245.

Grabfield, G. P. "The Action of Salicylates on the Nitrogen Metabolism." *Boston Medical and Surgical Journal*, Vol. 197, No. 24, pp. 1121-1124, December 15, 1927.

Grabfield, G. P. "Observations on the Effect of Prolonged Administration of Iodides on the Nitrogen Metabolism." *Journal of Pharmacology and Experimental Therapeutics*, Vol. XXXIII, No. 3, July, 1928.

Grabfield, G. P. "The Effect of Salicylates on the Nitrogen Metabolism with Special Reference to the Effect of the Cation of the Salt." *Journal of Pharmacology and Experimental Therapeutics*, Vol. XXXII, No. 5, March, 1928.

Solomon, H. C. "What Causes Mental Diseases?" *Hygeia*, July-August, 1928.

Solomon, H. C., and Berk, A. "Prolonged Treatment in Neurosyphilis." *American Journal of Syphilis*, November, 1928.

Solomon, M. H., and Lyday, J. F. "The Problem of the Supply of Psychiatric Social Workers for State Hospitals." *American Journal of Psychiatry*, Vol. VII, No. 4, January, 1928.

Solomon, M. H. "Social Work and Syphilis." *The Commonwealth*, Vol. 15, No. 3, July-August-September, 1928.

Wells, F. L. "Values in Social Psychology." From "The Unconscious: A Symposium." Alfred A. Knopf.

Wells, F. L. A Review of E. Miller. "Types of Mind and Body." *The Personnel Journal*.

Wells, F. L. "Psychogenic Factors in Emergentism and Allied Views." *Journal of Philosophy*.

Wells, F. L. "The Psychometric Factor in Medical Problems." *American Journal of Psychiatry*.

Wells, F. L. Review of J. B. Watson's "The Psychological Care of Infant and Child." *The Saturday Review of Books and Literature*.

## VALUATION.

November 30, 1928.

## REAL ESTATE.

Land, 2 acres . . . . .	\$45,060.00
Buildings . . . . .	583,028.07

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\$628,088.07

## PERSONAL PROPERTY.

Travel, transportation and office expenses . . . . .	\$3,804.10
Food . . . . .	3,557.10
Clothing and materials . . . . .	1,263.48
Furnishings and household supplies . . . . .	20,764.44
Medical and general care . . . . .	18,506.75
Heat, light and power . . . . .	1,366.43
Farm . . . . .	—
Garage, stables and grounds . . . . .	141.65
Repairs . . . . .	1,396.92

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\$50,800.87

## SUMMARY.

Real estate . . . . .	\$628,088.07
Personal property . . . . .	50,800.87

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\$678,888.94

## FINANCIAL REPORT.

*To the Department of Mental Diseases:*

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1928.

## CASH ACCOUNT.

*Receipts.*

<i>Income</i>	
Board of Patients . . . . .	\$9,520.50
Reimbursements . . . . .	4,267.16
	<hr/>
Personal Services:	
Reimbursement from Board of Retirement . . . . .	91.44
Sales:	
Food . . . . .	\$85.70
Repairs, Ordinary . . . . .	67.45
Arts and Crafts Sales . . . . .	80.85
	<hr/>
Total sales . . . . .	234.00
Miscellaneous:	
Interest on bank balances . . . . .	\$211.72
Rent . . . . .	1,800.00
Sundries . . . . .	148.00
	<hr/>
Total income . . . . .	\$16,272.82

## MAINTENANCE.

Balance from previous year, brought forward . . . . .	\$3,489.60
Appropriations, current year:	
Original appropriation . . . . .	237,900.00
Additional appropriation, August 31, 1928 . . . . .	7,190.00
	<hr/>
Total . . . . .	\$248,579.60
Expenses (as analyzed below) . . . . .	239,299.09
	<hr/>
Balance reverting to Treasury of Commonwealth . . . . .	\$9,280.51

*Analysis of Expenses.*

Personal services . . . . .	\$154,305.05
Religious instruction . . . . .	1,040.00
Travel, transportation and office expenses . . . . .	5,736.82
Food . . . . .	34,675.93
Clothing and materials . . . . .	1,182.57
Furnishings and household supplies . . . . .	4,671.88
Medical and general care . . . . .	17,399.44
Heat, light and power . . . . .	11,989.21
Garage, stable and grounds . . . . .	128.02
Repairs, ordinary . . . . .	3,209.52
Repairs and renewals . . . . .	4,960.65
	<hr/>
Total expenses for Maintenance . . . . .	\$239,299.09

## SPECIAL APPROPRIATIONS.

Balance December 1, 1927 . . . . .	—
Appropriations for current year . . . . .	\$5,800.00
	<hr/>
Total . . . . .	\$5,800.00
Expended during the year (see statement below) . . . . .	198.21
Reverting to Treasury of Commonwealth . . . . .	—
	<hr/>
Balance November 30, 1928, carried to next year . . . . .	\$5,601.79

OBJECT.	Act or Resolve.	Whole Amount.	Expended during Fiscal Year.	Total Expended to Date.	Balance at End of Year.
X-ray equipment	Acts of 1928, Chap. 127, Sec. 5	\$5,800.00	\$198.21	\$198.21	\$5,601.79

## PER CAPITA.

During the year the average number of inmates has been 87.93.  
 Total cost for maintenance, \$239,299.09.  
 Equal to a weekly per capita cost of \$52.05 (52 weeks to year).  
 Receipt from sales, \$234.00.  
 Equal to a weekly per capita of \$0.0508.  
 All other institution receipts, \$16,038.82.  
 Equal to a weekly per capita of \$3.4884.  
 Net weekly per capita \$48.52.

Respectfully submitted

ELIZABETH LIBBER, *Treasurer.*

## STATISTICAL TABLES.

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION  
 PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES.

TABLE 1. *General Information.*

Data correct at end of hospital year, November 30, 1928.

1. Date of opening as a hospital for mental diseases, June 24, 1912.
2. Type of hospital: State.
3. Hospital plant:

Value of hospital property:

Real estate, including buildings						\$628,088.07
Personal property						50,800.87
Total						<u>\$678,888.94</u>

Total acreage of hospital property owned: 2.04 acres.

4. Officers and Employees:

	Actually in Service at End of Year.			Vacancies at End of Year.		
	M.	F.	T.	M.	F.	T.
Superintendents	2	—	2	—	—	—
Assistant physicians	10	3	13	1	1	2
Medical internes	3	—	3	—	—	—
Total physicians	15	3	18	1	1	2
Resident dentists	1	—	1	—	—	—
Graduate nurses	2	12	14	—	2	2
Other nurses and attendants	17	16	33	—	—	—
Occupational therapists	—	2	2	—	—	—
Social workers	—	5	5	—	1	1
All other officers and employees	21	46	67	1	1	2
Total officers and employees	56	84	140	2	5	7

NOTE: The following items, 5-10, inc., are for the year ended September 30, 1928.

5. Census of Patient Population at end of year:

	Actually in Hospital.			Absent from Hospital but Still on Books.		
	M.	F.	T.	M.	F.	T.
White:						
Insane	40	34	74	24	23	47
Epileptics	1	—	1	—	—	—
Mental defectives	3	1	4	—	—	—
All other cases	3	3	6	1	—	1
Total	47	38	85	25	23	48
Other Races:						
Insane	1	—	1	1	—	1
Total	1	—	1	1	—	1
Grand total	48	38	86	26	23	49



	Males.	Females.	Total.
6. Patients under treatment in occupational-therapy classes, including physical training, on date of report	20	24	44
7. Other patients employed in general work of hospital on date of report	3	—	3
8. Average daily number of all patients actually in hospital during year	49.90	38.61	88.51
9. Voluntary patients admitted during year	2	5	7
10. Persons given advice or treatment in out-patient clinics during year	523	563	1,086

NOTE: The following tables, 3-18, inclusive, are for the statistical year ended September 30, 1928.

TABLE 2. *Financial Statement.*

See treasurer's report for data requested under this table.

TABLE 3. *Movement of Population.*

	INSANE.			SANE, VOLUNTARY.			TEMPORARY CARE AND OBSERVATION.			TOTAL.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1927 . . . . .	58	32	90	5	6	11	19	16	35	82	54	136
Admissions during year:												
First admissions . . . . .	91	77	168	40	11	51	749	597	1,346	880	685	1,565
Readmissions . . . . .	6	13	19	1	6	7	170	144	314	177	163	340
Transfers from other hospitals for mental diseases . . . . .	1	-	1	-	-	-	-	-	-	1	-	1
Total received during year . . . . .	98	90	188	41	17	58	919	741	1,660	1,058	848	1,906
Total on books during year . . . . .	156	122	278	46	23	69	938	757	1,695	1,140	902	2,042
Discharges from books during year:												
As recovered . . . . .	-	2	2	2	2	4	21	3	24	23	7	30
As improved . . . . .	34	19	53	16	4	20	479	159	638	529	182	711
As unimproved . . . . .	4	1	5	8	5	13	247	440	687	259	446	705
As without psychosis . . . . .	-	-	-	16	7	23	152	139	291	168	146	314
Transferred to other hospitals for mental diseases . . . . .	57	33	90	-	-	-	1	-	1	58	33	91
Died during year . . . . .	12	21	33	2	-	2	15	6	21	29	27	56
Total discharged, transferred and died during year . . . . .	107	76	183	44	18	62	915	747	1,662	1,066	841	1,907
Insane patients remaining on books of hospital at end of hospital year:												
In hospital . . . . .	23	23	46	2	5	7	23	10	33	48	38	86
On parole or otherwise absent . . . . .	26	23	49	-	-	-	-	-	-	26	23	49
Total . . . . .	49	46	95	2	5	7	23	10	33	74	61	135

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions.*

NATIVITY.	PATIENTS.			PARENTS OF MALE PATIENTS.			PARENTS OF FEMALE PATIENTS.		
	M.	F.	T.	Fathers.	Mothers.	Both Parents.	Fathers.	Mothers.	Both Parents.
United States . . . .	54	48	102	27	30	26	27	28	24
Austria . . . . .	—	2	2	—	—	—	2	2	2
Belgium . . . . .	1	—	1	1	1	1	—	—	—
Canada <sup>1</sup> . . . . .	6	8	14	13	13	11	15	14	12
England . . . . .	—	1	1	1	—	—	5	5	4
Germany . . . . .	1	1	2	2	2	2	3	3	3
Greece . . . . .	3	—	3	3	3	3	—	—	—
Holland . . . . .	1	—	1	1	1	1	—	—	—
Ireland . . . . .	10	6	16	21	19	18	11	11	11
Italy . . . . .	6	1	7	7	7	7	3	3	3
Norway . . . . .	1	—	1	1	1	1	1	1	1
Poland . . . . .	—	1	1	2	2	2	1	1	1
Russia . . . . .	—	6	6	3	3	3	6	6	6
Scotland . . . . .	3	1	4	3	4	3	1	1	1
Spain . . . . .	—	1	1	—	—	—	1	1	1
Sweden . . . . .	2	1	3	2	2	2	1	1	1
Other countries . . . .	3	—	3	3	3	3	—	—	—
Unascertained . . . .	—	—	—	1	—	—	—	—	—
Total . . . . .	91	77	168	91	91	83	77	77	70

<sup>1</sup> Includes Newfoundland.



TABLE 4-A. *Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born.*

AGE GROUPS.	Aggregate.			NATIVE BORN.						FOREIGN BORN.						Nativity unascertained.												
	Total.			Parentage.			Total.			Time in UNITED STATES BEFORE ADMISSION.			Total.															
				Native.	Foreign.	Mixed.				Under 5 years.	5-9 years.	10-14 years.					15 years and over.											
	M.	F.	T.				M.	F.	T.				M.	F.	T.			M.	F.	T.	M.	F.	T.					
Under 15 years	4	1	5	4	-	4	1	-	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	M. F. T.
15-19 years	6	7	13	5	6	11	3	3	6	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
20-24 years	12	11	23	11	6	17	5	2	7	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
25-29 years	6	11	17	6	9	15	3	3	6	1	5	6	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
30-34 years	16	17	33	11	5	16	4	4	8	5	1	6	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
35-39 years	8	12	20	5	9	14	4	3	7	1	5	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
40-44 years	6	6	12	4	1	5	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
45-49 years	11	6	17	3	2	5	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
50-54 years	17	7	24	1	4	5	1	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
55-59 years	7	3	10	4	3	7	2	1	3	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
60-64 years	3	3	6	-	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
65-69 years	4	2	6	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 years and over	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unascertained	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	91	77	168	54	48	102	26	24	50	20	18	38	8	6	14	37	29	66	6	5	11	2	4	28	21	49	-	-

TABLE 5. *Citizenship of First Admissions.*

	Males.	Females	Total.
Citizens by birth . . . . .	54	48	102
Citizens by naturalization . . . . .	30	17	47
Aliens . . . . .	7	12	19
Total . . . . .	91	77	168

TABLE 6. *Psychoses of First Admissions.*

PSYCHOSES.	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses . . . . .				2	—	2
2. Senile psychoses . . . . .				—	1	1
3. Psychoses with cerebral arteriosclerosis . . . . .				7	2	9
4. General paralysis . . . . .				24	4	28
5. Psychoses with cerebral syphilis . . . . .				2	1	3
6. Psychoses with Huntington's chorea . . . . .				—	—	—
7. Psychoses with brain tumor . . . . .				1	2	3
8. Psychoses with other brain or nervous diseases, total . . . . .	7	5	12	7	5	12
Other diseases . . . . .						
9. Alcoholic psychoses, total . . . . .				4	1	5
Delirium tremens . . . . .	1	—	1			
Korsakow's psychosis . . . . .	1	1	2			
Other types, acute or chronic . . . . .	2	—	2			
10. Psychoses due to drugs and other exogenous toxins, total . . . . .						
11. Psychoses with pellagra . . . . .						
12. Psychoses with other somatic diseases, total . . . . .				1	16	17
Delirium with infectious diseases . . . . .	—	1	1			
Delirium of unknown origin . . . . .	1	2	3			
Cardio-renal diseases . . . . .	—	3	3			
Other diseases or conditions . . . . .	—	10	10			
13. Manic-depressive psychoses, total . . . . .				5	15	20
Manic type . . . . .	1	4	5			
Depressive type . . . . .	3	10	13			
Other types . . . . .	1	1	2			
14. Involution melancholia . . . . .				1	—	1
15. Dementia praecox (schizophrenia) . . . . .				19	13	32
16. Paranoia and paranoid conditions . . . . .				2	1	3
17. Epileptic psychoses . . . . .				1	—	1
18. Psychoneuroses and neuroses, total . . . . .				1	2	3
Hysterical type . . . . .	—	2	2			
Other types . . . . .	1	—	1			
19. Psychoses with psychopathic personality . . . . .				—	1	1
20. Psychoses with mental deficiency . . . . .				1	—	1
21. Undiagnosed psychoses . . . . .				13	13	26
22. Without psychosis, total . . . . .						
Total . . . . .				91	77	168

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses.*

RACE.	Total.			Traumatic.			Senile.			With cerebral arterio-sclerosis.			General paralysis.			With cerebral syphilis.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	2	—	2	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Armenian	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch and Flemish	2	—	2	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
English	22	31	53	1	—	1	—	—	—	—	1	1	6	2	8	2	1	3
French	3	1	4	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
German	4	4	8	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
Greek	3	—	3	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Hebrew	5	7	12	—	—	—	—	—	—	1	—	1	1	1	2	—	—	—
Irish	31	18	49	—	—	—	—	1	1	4	1	5	9	—	9	—	—	—
Italian <sup>1</sup>	7	3	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lithuanian	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Romanian	2	—	2	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Scandinavian <sup>2</sup>	3	2	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	1	2	3	—	—	—	—	—	—	1	—	1	—	1	1	—	—	—
Mixed	2	5	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	91	77	168	2	—	2	—	1	1	7	2	9	24	4	28	2	1	3

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE.	With Huntington's chorea.			With brain tumor.			With other brain or nervous diseases.			Alcoholic.			Due to drugs and other exogenous toxins.			With pellagra.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch and Flemish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	1	1	3	—	3	1	—	1	—	—	—	—	—	—
French	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
German	—	—	—	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Irish	—	—	—	—	—	—	3	1	4	1	1	2	—	—	—	—	—	—
Italian <sup>1</sup>	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Lithuanian	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Pacific Islander	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Romanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Total	—	—	—	1	2	3	7	5	12	4	1	5	—	—	—	—	—	—

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.



TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE.	With other somatic diseases.			Manic- depressive.			Involution melan- cholia.			Dementia praecox.			Paranoia and paranoid conditions.			Epileptic psychoses.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Armenian	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Dutch and Flemish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English	-	5	5	-	7	7	-	-	-	4	5	9	1	1	2	1	-	1
French	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
German	-	1	1	-	-	-	-	-	-	2	1	3	-	-	-	-	-	-
Greek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	-	1	1	1	2	3	-	-	-	2	-	2	-	-	-	-	-	-
Irish	-	6	6	1	3	4	1	-	1	8	3	11	-	-	-	-	-	-
Italian <sup>1</sup>	1	-	1	1	1	2	-	-	-	1	2	3	-	-	-	-	-	-
Lithuanian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific Islander	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roumanian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	1	1	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Scotch	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic <sup>3</sup>	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	-	1	1	-	1	1	-	-	-	1	2	3	-	-	-	-	-	-
Total	1	16	17	5	15	20	1	-	1	19	13	32	2	1	3	1	-	1

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded.*

RACE.	Psycho- neuroses and neuroses.			With psycho- pathic personality.			With mental deficiency.			Un- diagnosed psychoses.			Without psychosis.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Armenian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
English	-	1	1	-	-	-	-	-	-	3	7	10	-	-	-
French	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
German	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-
Irish	1	-	1	-	1	1	-	-	-	3	1	4	-	-	-
Italian <sup>1</sup>	-	-	-	-	-	-	-	-	-	3	-	3	-	-	-
Lithuanian	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Pacific Islander	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Roumanian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-
Scotch	-	1	1	-	-	-	-	-	-	-	1	1	-	-	-
Slavonic <sup>3</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Total	1	2	3	-	1	1	1	-	1	13	13	26	-	-	-

<sup>1</sup> Includes "North" and "South."<sup>2</sup> Norwegians, Danes and Swedes.<sup>3</sup> Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES.	Total.			Under 15 years.			15-19 years.			20-24 years.			25-29 years.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	-	2	-	-	-	-	-	-	1	-	1	-	-	-
2. Senile . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	7	2	9	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	24	4	28	1	-	1	1	-	1	-	-	-	1	-	1
5. With cerebral syphilis . . . . .	2	1	3	-	-	-	-	-	-	1	1	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	7	5	12	1	-	1	-	1	1	-	-	-	-	-	-
9. Alcoholic . . . . .	4	1	5	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	1	16	17	-	-	-	-	-	-	1	1	-	-	3	3
13. Manic-depressive . . . . .	5	15	20	-	-	-	1	2	3	1	3	4	-	2	2
14. Involution melancholia . . . . .	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	19	13	32	2	-	2	3	3	6	5	4	9	3	3	6
16. Paranoia and paranoid conditions . . . . .	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	1	-	-	-	-	-	-	1	-	1	-	-	-
18. Psychoneuroses and neuroses . . . . .	1	2	3	-	1	1	1	1	2	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
21. Undiagnosed psychoses . . . . .	13	13	26	-	-	-	-	-	-	4	2	6	1	3	4
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	91	77	168	4	1	5	6	7	13	12	11	23	6	11	17

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued.*

PSYCHOSES.	30-34 years.			35-39 years.			40-44 years.			45-49 years.			50-54 years.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-
4. General paralysis . . . . .	5	1	6	6	1	7	2	-	2	3	2	5	3	-	3
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
8. With other brain or nervous diseases . . . . .	1	-	1	1	1	2	-	2	2	2	-	2	2	1	3
9. Alcoholic . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	1	3	4	-	4	4	-	1	1	-	1	1	-	1	1
13. Manic-depressive . . . . .	-	1	1	-	3	3	1	1	2	1	-	1	-	2	2
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	5	1	6	-	1	1	1	-	1	-	1	1	-	-	-
16. Paranoia and paranoid conditions . . . . .	1	-	1	-	-	-	1	-	1	-	-	-	-	1	1
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	1	1	2	-	2	2	1	2	3	4	-	4	1	1	2
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	16	7	23	8	12	20	6	6	12	11	6	17	7	7	14

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded.*

PSYCHOSES.	55-59 years.			60-64 years.			65-69 years.			70 years and over.			Unascertained.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
3. With cerebral arteriosclerosis . . . . .	1	-	1	1	1	2	3	-	3	1	-	1	-	-	-
4. General paralysis . . . . .	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
13. Manic-depressive . . . . .	-	-	-	1	-	1	-	1	1	-	-	-	-	-	-
14. Involution melancholia . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	1	1	1	1	2	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	7	3	10	3	3	6	4	2	6	1	1	2	-	-	-



TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses.

Psychoses	Total.			Illiterate.			Reads and Writes. <sup>1</sup>			Common School.			High School.			College.			Unseer-tained.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	2	-	2	-	-	-	-	-	-	1	-	1	-	-	-	1	-	-	-	-	-
2. Smile	-	1	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis	7	2	9	-	-	-	-	-	-	6	2	8	-	-	-	-	-	-	-	-	-
4. General paralysis	24	4	28	1	1	2	3	-	-	17	2	19	5	-	5	1	-	1	-	-	-
5. With cerebral syphilis	2	1	3	-	-	-	-	-	-	-	1	1	2	-	2	-	-	-	-	-	-
6. With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor	1	2	3	-	-	-	-	-	-	1	2	3	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases	7	5	12	-	-	-	-	-	-	6	4	10	1	1	2	-	-	-	-	-	-
9. Alcohol	4	1	5	-	-	-	-	-	-	3	1	4	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra	-	16	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other toxic diseases	1	15	16	-	-	-	-	-	-	1	-	11	-	-	-	1	1	1	-	-	-
13. Manic-depressive	5	15	20	-	-	-	-	-	-	4	10	14	1	3	4	-	2	2	-	-	-
14. Involution melancholia	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
15. Dementia praecox	19	13	32	-	-	-	-	-	-	10	7	17	6	4	10	3	2	5	-	-	-
16. Paranoia and paranoid conditions	2	1	3	-	-	-	-	-	-	1	1	2	1	-	1	-	-	-	-	-	-
17. Epileptic psychoses	1	1	2	-	-	-	-	-	-	1	1	2	1	1	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses	1	1	2	-	-	-	-	-	-	1	1	2	1	1	1	-	-	-	-	-	-
19. With psychopathic personality	1	1	2	-	-	-	-	-	-	1	1	2	1	1	1	-	-	-	-	-	-
20. With mental deficiency	13	13	26	1	1	1	1	-	-	6	7	13	2	4	6	3	2	5	1	-	1
21. Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	91	77	168	3	2	5	3	-	3	57	51	108	19	17	36	8	7	15	1	-	1

<sup>1</sup> Includes those who did not complete fourth grade in school.

TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES.	Total.			Urban.			Rural.			Unascertained.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	1	—	1	1	—	1	—	—	—
2. Senile . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	7	2	9	7	2	9	—	—	—	—	—	—
4. General paralysis . . . . .	24	4	28	24	4	28	—	—	—	—	—	—
5. With cerebral syphilis . . . . .	2	1	3	2	—	2	—	1	1	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	1	2	3	1	2	3	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	7	5	12	7	5	12	—	—	—	—	—	—
9. Alcoholic . . . . .	4	1	5	4	1	5	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	16	17	1	16	17	—	—	—	—	—	—
13. Manic-depressive . . . . .	5	15	20	4	14	18	—	—	—	1	1	2
14. Involution melancholia . . . . .	1	—	1	1	—	1	—	—	—	—	—	—
15. Dementia praecox . . . . .	19	13	32	19	13	32	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	2	1	3	2	1	3	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	1	—	1	1	—	1	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	2	3	1	2	3	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
20. With mental deficiency . . . . .	1	—	1	1	—	1	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	13	13	26	13	12	25	—	1	1	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	91	77	168	89	74	163	1	2	3	1	1	2

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES.	Total.			Dependent.			Marginal.			Comfortable.			Unascertained.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—
2. Senile . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	7	2	9	1	—	1	6	2	8	—	—	—	—	—	—
4. General paralysis . . . . .	24	4	28	—	1	1	24	3	27	—	—	—	—	—	—
5. With cerebral syphilis . . . . .	2	1	3	—	—	—	2	1	3	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	1	2	3	—	—	—	1	2	3	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	7	5	12	—	—	—	7	5	12	—	—	—	—	—	—
9. Alcoholic . . . . .	4	1	5	—	—	—	4	1	5	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	16	17	—	—	—	1	16	17	—	—	—	—	—	—
13. Manic-depressive . . . . .	5	15	20	—	—	—	5	15	20	—	—	—	—	—	—
14. Involution melancholia . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
15. Dementia praecox . . . . .	19	13	32	—	—	—	19	13	32	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	2	1	3	—	—	—	2	1	3	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	2	3	—	—	—	1	2	3	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
20. With mental deficiency . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	13	13	26	—	—	—	13	13	26	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	91	77	168	1	2	3	90	75	165	—	—	—	—	—	—

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES.	Total.			Abstinent.			Temperate.			Intemperate.			Unascertained.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	-	2	1	-	1	-	-	-	1	-	1	-	-	-
2. Senile . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	7	2	9	-	2	2	6	-	6	1	-	1	-	-	-
4. General paralysis . . . . .	24	4	28	14	4	18	9	-	9	1	-	1	-	-	-
5. With cerebral syphilis . . . . .	2	1	3	-	1	1	1	-	1	1	-	1	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	2	3	-	2	2	-	-	-	1	-	1	-	-	-
8. With other brain or nervous diseases . . . . .	7	5	12	3	5	8	3	-	3	1	-	1	-	-	-
9. Alcoholic . . . . .	4	1	5	-	-	-	-	-	-	4	1	5	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	1	16	17	-	15	15	1	1	2	-	-	-	-	-	-
13. Manic-depressive . . . . .	5	15	20	3	14	17	2	1	3	-	-	-	-	-	-
14. Involution melancholia . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
15. Dementia præcox . . . . .	19	13	32	14	12	26	4	-	4	1	-	1	-	1	1
16. Paranoia and paranoid conditions . . . . .	2	1	3	1	1	2	1	-	1	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	1	2	3	1	2	3	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	13	13	26	5	12	17	2	1	3	6	-	6	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	91	77	168	45	72	117	29	3	32	17	1	18	-	1	1



TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES.	Total.			Single.			Married.		Widowed.		Separated.		Divorced.		Unascertained.
	M.	F.	T.	M.	F.	T.	M.	F.	M.	F.	M.	F.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	2	—	2	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	7	2	9	—	1	1	5	6	2	—	—	—	—	—	—
4. General paralysis . . . . .	24	4	28	5	—	5	18	3	21	1	—	—	1	—	—
5. With cerebral syphilis . . . . .	2	1	3	1	—	—	—	1	1	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	1	3	4	—	—	—	1	2	3	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	7	5	12	2	2	4	4	6	1	1	2	—	—	—	—
9. Alcoholic . . . . .	4	1	5	—	—	—	4	1	5	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	16	17	—	6	6	1	9	10	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	15	15	4	7	11	1	6	7	1	1	—	1	1	—
13. Manic-depressive . . . . .	5	20	25	—	—	—	1	1	—	—	—	—	—	—	—
14. Involution melancholia . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	19	13	32	17	9	26	2	2	4	—	—	—	1	1	—
16. Paranoia and paranoid conditions . . . . .	2	1	3	—	—	—	2	1	3	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	1	2	3	1	1	2	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	1	2	—	2	3	—	1	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	1	1	1	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	1	1	1	—	—	—	—	—	—	—	—	1	1	—
21. Undiagnosed psychoses . . . . .	13	13	26	7	3	10	6	7	13	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	91	77	168	41	31	72	45	36	81	4	7	11	1	3	4

TABLE 14. *Psychoses of Readmissions.*

PSYCHOSES.	Males.	Females.	Total.
1. Traumatic psychoses	—	—	—
2. Senile psychoses	—	—	—
3. Psychoses with cerebral arteriosclerosis	—	—	—
4. General paralysis	1	—	1
5. Psychoses with cerebral syphilis	—	—	—
6. Psychoses with Huntington's chorea	—	—	—
7. Psychoses with brain tumor	—	—	—
8. Psychoses with other brain or nervous diseases	—	1	1
9. Alcoholic psychoses	—	—	—
10. Psychoses due to drugs and other exogenous toxins	1	—	1
11. Psychoses with pellagra	—	—	—
12. Psychoses with other somatic diseases	—	—	—
13. Manic-depressive psychoses	—	7	7
14. Involution melancholia	—	1	1
15. Dementia praecox	2	1	3
16. Paranoia and paranoid conditions	—	—	—
17. Epileptic psychoses	—	—	—
18. Psychoneuroses and neuroses	—	—	—
19. Psychoses with psychopathic personality	—	—	—
20. Psychoses with mental deficiency	—	—	—
21. Undiagnosed psychoses	—	3	3
22. Without psychosis	2	—	2
Total	6	13	19

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge.*

PSYCHOSES.	Total.			Recovered.			Improved.			Unimproved.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	—	1	—	—	—	1	—	1	—	—	—
2. Senile	—	1	1	—	—	—	—	1	1	—	—	—
3. With cerebral arteriosclerosis	1	—	1	—	—	—	—	—	—	1	—	1
4. General paralysis	11	—	11	—	—	—	11	—	11	—	—	—
5. With cerebral syphilis	—	1	1	—	—	—	—	1	1	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	1	—	1	—	—	—	1	—	1	—	—	—
8. With other brain or nervous diseases	1	—	1	—	—	—	1	—	1	—	—	—
9. Alcoholic	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	3	4	7	—	1	1	2	3	5	1	—	1
13. Manic-depressive	9	7	16	—	1	1	9	6	15	—	—	—
14. Involution melancholia	—	1	1	—	—	—	—	1	1	—	—	—
15. Dementia praecox	4	3	7	—	—	—	4	2	6	—	1	1
16. Paranoia and paranoid conditions	1	—	1	—	—	—	1	—	1	—	—	—
17. Epileptic psychoses	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	1	2	3	—	—	—	—	2	2	1	—	1
20. With mental deficiency	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses	5	3	8	—	—	—	4	3	7	1	—	1
22. Without psychosis	—	—	—	—	—	—	—	—	—	—	—	—
Total	38	22	60	—	2	2	34	19	53	4	1	5

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Psychoses.*

CAUSES OF DEATH.	Total.		Senile.		With cerebral arterio-sclerosis.		General paralysis.		Alcoholic.		Manic-depressive.		Involution melancholia.
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
<i>Epidemic, Endemic and Infectious Diseases</i>													
Purulent infection, septicæmia	1	1	2	-	-	-	-	-	-	-	1	1	-
Other infectious diseases	-	1	1	-	-	-	-	-	-	-	-	-	-
<i>General Diseases Not Included in Class I.</i>													
Cancer and other malignant tumors	1	2	3	-	-	-	-	-	-	-	1	-	-
Alcoholism (acute or chronic)	1	-	1	-	-	-	-	-	-	1	-	-	-
<i>Diseases of the Nervous System.</i>													
Meningitis (non-epidemic)	1	-	1	-	-	-	-	-	-	-	-	-	-
General paralysis of the insane	3	2	5	-	-	-	3	2	5	-	-	-	-
Other forms of mental disease	2	8	10	-	-	-	-	-	-	-	-	1	-
<i>Diseases of the Circulatory System.</i>													
Endocarditis and myocarditis	-	4	4	-	-	-	-	-	-	-	-	-	-
Arteriosclerosis	2	1	3	-	2	1	3	-	-	-	-	-	-
<i>Diseases of the Respiratory System.</i>													
Bronchopneumonia	-	2	2	-	-	-	-	-	-	1	1	-	-
Lobar pneumonia	1	-	1	-	-	-	-	-	-	-	-	-	-
Total	12	21	33	-	-	-	2	1	3	1	1	2	-
							3	2	5		2	4	-



TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Psychoses — Concluded.*

CAUSES OF DEATH.	Dementia præcox.		Paranoia and paranoid conditions.		Epileptic psychoses.		Psycho- neuroses and neuroses.		With psychopathic personality.		With mental deficiency.		All other psychoses. <sup>1</sup>	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<i>Epidemic, Endemic and Infectious Diseases.</i>														
Purulent infection, septikæmia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other infectious diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>General Diseases Not Included in Class I.</i>														
Cancer and other malignant tumors . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholism (acute or chronic) . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Nervous System.</i>														
Meningitis (non-epidemic) . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General paralysis of the insane . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other forms of mental disease . . . . .	-	1	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Circulatory System.</i>														
Endocarditis and myocarditis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of the Respiratory System.</i>														
Bronchopneumonia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lobar pneumonia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	-	1	-	-	-	-	-	-	-	-	-	-	4	14

<sup>1</sup> Includes group 22, "without psychosis."

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses.*

Psychoses.	Total.			Under 15 years.		15-19 years.		20-24 years.		25-29 years.		30-34 years.		35-39 years.		40-44 years.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis	3	2	5	-	-	-	-	-	-	1	-	1	-	-	1	-	-	-
5. With cerebral syphilis	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor	-	3	3	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases	1	3	4	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2
9. Alcoholic	1	1	2	-	-	-	-	-	-	-	-	1	-	1	-	-	-	2
10. Due to drugs and other exogenous toxins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases	-	6	6	-	-	-	-	-	-	-	-	-	-	-	3	-	1	1
13. Manic-depressive	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
16. Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	12	21	33	-	-	-	-	1	1	1	-	1	-	1	-	6	3	3

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses — Concluded.

PSYCHOSES.	45-49 years.		50-54 years.		55-59 years.		60-64 years.		65-69 years.		70 years and over.		Unascertained.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	1	-	-	-	1	-	-	1	-	-	-	-
4. General paralysis . . . . .	1	1	-	-	1	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	1	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	1	-	-	1	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	1	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	1	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	1	-	-	-	1	-	-	-	-	-	-	-
13. Manic-depressive . . . . .	2	-	-	2	-	-	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	1	-	1	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	2	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	7	3	10	3	2	3	2	2	1	1	-	-	-



TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses.*

PSYCHOSES.	Total.			Less than 1 month.			1-3 months.		4-7 months.		8-12 months.		1-2 years.		3-4 years.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	2	1	3	2	2	3	2	1	1	-	-	-	-	-	-	-
4. General paralysis . . . . .	3	2	5	1	2	3	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	3	4	1	1	2	1	1	1	-	-	-	1	1	-	-
8. With other brain or nervous diseases . . . . .	1	1	2	1	1	2	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	6	6	-	4	4	-	2	2	-	-	-	-	-	1	-
12. With other somatic diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive . . . . .	2	2	4	-	2	2	1	1	1	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	2	2	4	1	1	1	1	2	3	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	12	21	33	6	13	19	5	7	12	1	-	-	-	1	1	-





The Commonwealth of Massachusetts

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ANNUAL REPORT

OF

THE TRUSTEES

OF THE

BOSTON PSYCHOPATHIC  
HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1929

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DEPARTMENT OF MENTAL DISEASES



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<sup>1</sup>By arrangement with the Department of Mental Diseases.

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## BOSTON PSYCHOPATHIC HOSPITAL REPORT OF THE TRUSTEES.

*To His Excellency the Governor and the Honorable Council:*

In this report for the year 1929 we again wish to record our great satisfaction with the administration and the practical work for patients of the Boston Psychopathic Hospital. The remarkably efficient administration is due to a happy combination of central management on the part of the Department of Mental Diseases and the fine spirit shown by members of the hospital staff.

The great value of the hospital for many varieties of patients is the result of the whole-hearted approach of physicians, psychologists, nurses, social workers, laboratory assistants and other members of the personnel to the difficult problems with which they deal co-operatively in their different departmental fields. How closely knit and interdependent their efforts are is witnessed to in the separate reports of the chiefs of departments.

The great service that this hospital is rendering to the Commonwealth in taking care of actually mentally diseased patients, in aiding the courts, in meeting school problems, and in efforts to prevent mental disease may be readily seen by even a glance at the statistical enumerations which, as given, are not too detailed to be of interest to everyone.

In previous reports we have mentioned the fact that the standing of this hospital in the professional world, both in this country and abroad, is evidenced by the number and quality of the psychiatrists and others who present themselves for training. However, it should also be stated, and with sincere gratitude and appreciation, that the upstanding position of the hospital has attracted very considerable grants from one of the great Foundations and from other special sources, all of which are named in the report, for carrying on particular pieces of research of importance in the field of psychiatry.

The Medical Director's own report herewith presented is nothing short of a brilliant monograph on the ramifications of modern psychiatry. We welcome its publication here and bespeak for it a wide reading.

As citizens frequently viewing the practical working aspects of the hospital we have found during the year remarkably little to criticize and that mainly concerned with the physical conditions of the hospital which we feel before long must have extensive repairs. And once more we take occasion to express not only our satisfaction but also our thankfulness for the splendid co-operative spirit which is continually shown on all sides and which, more than anything else, makes for a smooth-running hospital and intelligent service to the patients.

Respectfully submitted,

WILLIAM HEALY, *Chairman.*  
ESTHER M. ANDREWS, *Secretary.*  
ALLAN WINTER ROWE.  
WILLIAM J. SULLIVAN.

CARRIE INNES FELCH.  
CHANNING FROTHINGHAM.  
CHARLES F. ROWLEY.

## MEDICAL DIRECTOR'S REPORT.

DECEMBER 12, 1929.

*To the Board of Trustees of the Boston Psychopathic Hospital.*

In accordance with the provision of the statutes I submit for your consideration the report for the statistical year ending September 30, 1929, and for the fiscal year ending November 30, 1929.

### ON THE GENERAL ORGANIZATION OF THE WORK.

The hospital during the past year has continued to carry on its three main

functions of caring for the mentally and nervously disordered, of carrying on continuous research into the causation and treatment of this special form of illness and of being a training centre for a great variety of workers in this special field — medical graduates, medical students, affiliated nurses, occupational therapists, social service workers, psychologists and laboratory technicians. These main functions are so closely interrelated that any interference with the one would have a serious effect upon the efficiency of the other. The fundamental test of the hospital is the care and treatment of the individual patient, but satisfactory treatment of the individual sick person is only possible when there is in addition to the good will, sympathy and the conscience of the individual physician a keen interest in the special medical problems presented by the individual case, not only an interest in recognizing what is familiar in the disorder but curiosity as to the significance of what is unfamiliar and eagerness in the systematic investigation of what is still obscure. For the sick person to receive the very best care which is available there must be on the part of each member of the staff the attitude of the alert investigator as well as of the kindly physician. Active curiosity as to the real significance of the symptoms of the sick patient and as to the mechanisms which may underly these symptoms means the close co-operation of the physician on the ward with the physician in the laboratory; the latter applies special procedures in order to test the functions of the individual systems and organs to see whether the key to the complex human disorder may not be found in a disorder of the digestive apparatus, in some subtle bacterial infection, in some disturbance of the composition of the blood, in imperfect functioning of liver or kidney, in the disturbed activity of those organs which have so much to do with our energy and our emotions, the endocrine glands. The physician must have not only an enlightened curiosity as to the actual functioning of each part of the complicated machinery which makes up the bodily household; he must be also curious as to the way in which the patient as an individual reacts to his life situation, ruminates over his past, daydreams about the future, and constructs the world in the light of his own individual needs and underlying emotions. In order to know the individual patient he must establish a human bond between himself and the patient and as, with many patients to care for, he can only give a moderate portion of his time to each individual patient, he must utilize the observations which the nurses make in their more continuous and intimate contacts with the patient. The value of the observations of the nurses will be in proportion to the insight which the nurses have into the special problems of the individual patient, and for such insight the nurse is dependent upon the physician who is looking after the patient. For the care of the patient, therefore, it is of the greatest importance that the physician should give the nurse an adequate statement as to the special needs and problems of the individual patient; in return he will receive from the nurse a much more valuable and relevant series of observations which will usefully supplement the results of his own personal contact with the patient. In the treatment of the patient the physician requires the cooperation of various workers. For the bedside nursing, for the sympathetic human atmosphere, for the opportunity of the patient to talk about disturbing preoccupations and to get helpful reassurance the physician needs the collaboration of the nurse. In many cases, however, there is needed in addition the healthy utilization of unemployed energy and of dormant or latent skills, with the satisfaction which opportunities for occupation offer. The physician turns to the occupational therapist to create an atmosphere of healthful constructive activity, to offer to the sick person a choice of various occupations, one of which may arouse interest and be a source of much satisfaction; the occupational therapist encourages the patient to take up some suitable activity, no matter how simple or economically modest, emphasizes the value of accomplishment and through the feeling of success stimulates the patient to a fuller use of his or her endowment, so that less energy remains available for morbid preoccupations or disturbing activities. The physician aims not only to restore to normal functioning any disordered organ or system of the body, and with the help of nurse and occupational therapist to deal with those disturbances of the emotional and intellectual life which can be treated by personal influence and encouragement, by the op-



portunity for emotional release in confidential interviews, by the influence of that intangible spirit which is so important in the atmosphere of the ward and in the department of occupational therapy; the physician aims to restore the patient to his normal place in the social environment, to help him to deal with the concrete tests involved in the relationship of the patient to wife or husband, to children or parent, to employer and to fellow-worker, to his or her social and religious group. The physician realizes that a nervous or mental disorder, where it is not symptomatic of some underlying organic process is an evasive or inferior way of meeting the actual demands of the life situation. He aims not only at restoring the physical health where it is at fault, and giving the patient opportunity for review and revaluation of all his personal problems, but also at giving the patient specific help in relation to taking up his or her definite problems in home, workshop and social group. The study of the social situation is important; the resources that may be available to help the patient in dealing with the social situation, the special difficulties, the complex personalities involved, the actual economic trials have all to be carefully weighed. For this purpose the physician needs the cooperation of the social worker, skilled to investigate situations, familiar with the resources of the community, able to help the patient by practical suggestion to take the first steps towards the return to full social and economic efficiency. Without the help of the social worker the critical period of convalescence and of return to normal social life would be very much more difficult for the individual patient. With the assistance of the social worker it is possible to discharge the patient from the hospital at an earlier date than would otherwise be possible and to maintain in the community as productive members vulnerable individuals who, without some such contact, would be much more liable to fall by the way.

In the task of studying the breakdown of the individual in face of the stresses and strains of life and of endeavoring to readjust the individual to the life situation with full appreciation of his personal assets and liabilities, the cooperation of the psychologist is of value. In many cases the psychologist is able to give a useful decision as to the intelligence of the individual and his suitability for economic tasks of greater or less complexity. He is able to make a study of the specific abilities and disabilities of the patient and make much more precise the lines along which success can be foreseen or failure avoided. He can bring to the study of the emotional life and of the total personality a much more rigid technique and much more precise formulations than the clinical psychiatrist would otherwise have.

An essential condition for the smooth and efficient working of each department and for the best cooperation between these various departments is an efficient central executive. The work of a hospital is not altogether of a detached professional nature. The care and treatment of patients requires the careful organization of supplies and the supervision of all the services which are essential to the physical comfort of the patients and those working in the hospital. The conditions under which patients are admitted to and discharged from the hospital have to be scrutinized in a careful way, as in many cases authority is required for detaining the patient in the hospital when his disorder makes him unwilling to accept the recommendation of his physicians. The cooperation of relatives is frequently required in order that the necessary steps be taken to safeguard the patient from danger and to insure for him the necessary hospital care. The executive officers, therefore, have not only the fundamental problems of arranging for the actual running of the hospital and organizing various services; they have also the task of making all necessary arrangements for the admission and discharge of patients and for interpreting to distressed relatives the meaning of the necessary arrangements, and helping to give them a saner and more modern attitude towards the sickness of their relatives. A fascinating study of contemporary thought and beliefs with regard to mental disorder might be made on the basis of the conversations which take place in the office of the executive officer. With the work of the hospital specialized in various departments, with the executive group, the clinical group, the laboratory group, the ancillary medical services and the domestic services there is obvious need of a spirit of helpful



cooperation which makes the system workable and prevents the numerous joints from creaking too badly. It is a pleasure to express one's appreciation of the helpful spirit of cooperation which is so general throughout the hospital and which makes it such a pleasant place in which to work.

#### ON THE NATURE OF THE WORK.

First in order comes the care and treatment of the patients who are admitted to the hospital for study and treatment in the wards or who come to the Out-Patient Department for advice while still able to carry on at home or at work. The average citizen is beginning to realize that mental disorders are not so different from other forms of sickness as had been usually supposed. He is slowly divesting himself of the fear which, for centuries, had been associated with mental disorders. He realizes that in a mental hospital many of the patients have disorders which might also be treated in the general hospital if the staff of the general hospital should be interested in these problems and should have a psychiatrist as one of the members of the staff. Whether a patient is treated in a general hospital or in a psychopathic hospital is a question often determined by incidental facts of structure and of personnel. Steady progress is being made in dissolving the artificial barriers which separate so-called mental disorders from the other ailments to which human flesh is heir. Some idea of the actual material which is dealt with in the Boston Psychopathic Hospital may be gained from a few brief summaries of cases.

#### MENTAL DISORDERS SYMPTOMATIC OF BODILY AILMENTS.

In the first few cases one sees that the disturbed behaviour, grasp of the environment, appreciation of social values, are but indications of a well marked bodily ailment. The first two cases illustrate the disturbances that may be associated with some of the complications following childbirth. Such disturbances following childbirth are not uncommon and at the Boston Psychopathic Hospital a large number of such patients are admitted. There is no group of cases for which the Psychopathic Hospital is more specially adapted than these mothers who, owing to some complications of the lying-in period, develop symptoms difficult to care for in a general hospital but often transitory. They can often be kept in the Psychopathic Hospital until their full recovery.

A.B., a woman of 31, eight days after she had been delivered by Caesarean section in another hospital became delirious and too difficult to care for. She was admitted to the Boston Psychopathic Hospital in a delirious condition with fever due to a uterine infection. During the next six weeks, during which the treatment was supervised by the consulting gynecologist, the patient's physical condition gradually became normal. A review of the whole situation disclosed the fact that the patient had been brooding over certain conditions associated with her marriage and had looked forward with dread to childbirth. The patient was transferred to a state hospital for convalescent treatment.

B.C., a colored woman of 22, was admitted to the hospital three months after the birth of a child. The childbirth had been followed by an infection and later by weakness of the legs. While being treated at the City Hospital she became delirious and was transferred to the Psychopathic Hospital. Treatment was directed to the uterine infection, to the muscular condition and to pellagrous symptoms, in cooperation with the consulting gynecologist and neurologist. The patient has made a complete recovery from the mental confusion and her general physical condition has steadily improved.

C.D., a man of 70, a few days before admission to the hospital became confused, felt that he was being imprisoned and would soon be foully murdered. When examined at the hospital he was found to have a failing heart and very high blood pressure. The mental symptoms indicated malnutrition of the brain, secondary to the cardio-vascular conditions. The treatment of this case was the protracted treatment necessary for heart symptoms of this nature, and after 5 months the patient left the hospital with his circulation in much better condition; his mental symptoms had completely disappeared.

D.E., a man of 31, was admitted to the hospital because he had suddenly developed the idea that the people next door were trying to annoy him, called him bad names, leveled all manner of abuse against him. These symptoms were the expression of the malnutrition of the brain due to pernicious anaemia, and treatment for this condition was at once instituted. He had on two previous occasions had similar mental symptoms when the anaemia had reached a certain degree of severity.

#### DISORDERS OF CONDUCT (Delinquency), SYMPTOMATIC OF BODILY AILMENTS.

E.F., a man of 59, was found guilty of attempting to defraud an insurance company by trying to set fire to his apartment. The patient was referred by the court to the Psychopathic Hospital for examination. It was found that he had definite deterioration of the mental functions secondary to diseased blood vessels in the brain. Owing to the discernment of the judge this patient is now receiving treatment in a mental hospital instead of being relegated to a penal institution.

F.G., a negro boy of 17, was arrested on a charge of indecent assault on a little girl. The facial expression of the lad and the tremor of his hands impressed the court and he was sent to the Psychopathic Hospital for examination. His condition was found to be the result of an attack of epidemic encephalitis ("sleeping sickness") from which he had suffered 4 years previously. He is now being treated in a mental hospital.

G.H., a man of 24, is a similar case. For several years he had had many court records and had been a somewhat disturbing inmate at home. His admission to the Psychopathic Hospital followed arrest for certain sexual irregularities. He, too, was found to present the residuals from an old attack of lethargic encephalitis.

H.I., a boy of 12, had for over a year been lagging behind in school and had commenced to steal and to lie without shame. A partial paralysis of the left arm and leg developed. The diagnosis of lethargic encephalitis was made. In such a case the boy is liable to be treated as a purely pedagogic or ethical problem. The steady increase among teachers of interest in and knowledge of mental hygiene makes them ever more sensitive to the possibility that the behaviour of the child may be explained by underlying factors which can only be determined by a thorough medical or psychiatric review. The dissemination of such knowledge the teaching profession means that children who throughout require help are seen at a much earlier age than before and that situations are dealt with in a much more appropriate manner.

In the above cases the diagnosis of a recognized type of disorder, lethargic encephalitis, made the situation clearer and gave the key to the correct management of the problem. In other cases the underlying condition may not be so familiar or so easy to formulate and there may be more hesitation in accepting the disturbed conduct as the expression of some underlying physical ailment.

Thus I.J., a girl of 20, had for 9 months previous to admission been careless in her work, promiscuous in her relations, lying and stealing. The patient had infected tonsils and gonorrhea, but what was more significant, she had gained 40 pounds in the previous six months. This rapid development of obesity suggested the presence of some quite specific disturbance of the bodily mechanisms, but there was no evidence to make clear the exact nature of the underlying specific process.

#### DISORDERS BASED ON PERSONALITY AND ON ENVIRONMENTAL INFLUENCES.

In other patients the disturbed behaviour does not seem to be the expression of any bodily ailment but to be the way in which an individual, with his own special type of personality, reacts to the actual life situation and to the special influences of the environment. A study of this material has suggestions of value in regard to the training of children and the attitude of parents towards children.

J.K., a Jewish boy of 14, for 3 weeks before admission to the Psychopathic Hospital complained of being tired, of breathing with difficulty owing to a lump in his throat; he spoke as if he were hoarse, he frequently shrieked "I am dying" and screamed for his mother. The boy had been doing poorly in school for the



past year. The mother was a very solicitous and emotional woman and whenever she had any difficulty with the boy she would cry and tear her hair. The boy's behaviour, to a large extent, reflected the behaviour of the mother and served as an appeal to the mother. In the treatment of this boy the important point was to place him in a healthy atmosphere where no undue emotional influences would foster the continuation of his nervous behaviour. He was, therefore, sent to a boy's camp after which he was admitted to a home for Jewish children. His nervous symptoms have completely disappeared. The father reports to the Social Service Department about the progress of the boy and an endeavor has been made to help the mother to develop a better attitude so that the three other children remaining at home may not be infected by her emotional reactions.

K.L., a boy of 9, for the past year had been running away from home, sleeping in doorways, going without meals, associating with perverts, worrying over his own bad habits. The behaviour seemed to be the reaction to a sordid home with an incapable mother, rather than the expression of any inner difficulties due to a seriously ill-balanced constitution. The transfer of the boy to a foster home caused a marked change for the better in his behaviour. Attention to the boy at this period may mean the development of a normal adult while the continuation of the previous neglect favors the development of a career of delinquency and disease.

L.M., a boy of 14, for 3 months had been unable to concentrate on his school work, had suffered from headache and been fearful of the dark. Rumination over sex matters, a feeling of inferiority, inadequate recreation and worry over the financial difficulties of the household seemed to explain the development of the condition. After a month of life in a camp with some frank talks in regard to sex the nervous symptoms had disappeared.

M.N., a boy of 16, ran away from an unhappy home, drifted along, contracted syphilis. In his despair he tried to hang himself. After a review of the case he was admitted to a state school, is receiving the training appropriate to his endowment while being treated for syphilis.

N.O., a girl of 16, possibly somewhat unstable constitutionally and subject to violent temper tantrums, had after her mother's death been brought up in a somewhat unfortunate atmosphere under the influence of a father of doubtful standards. In a violent temper tantrum she attempted suicide and was brought to the hospital. She was a girl of excellent intelligence, able to discuss with the physician the problems of her own endowment and her life situation and to make reasonable plans for her own further development. On leaving the hospital she continued to keep in contact with the social worker and to report at intervals to the Out-Patient Department. Her stability seems to be much improved.

O.P., a girl of 16, was brought to the hospital after a suicidal attempt. All her life she had shown a somewhat impulsive unstable type of reaction. The home influences had been poor. The girl was of limited intelligence. In this she differed from the previous patient who was well enough endowed to be able to take the initiative in making her own plans and to deal with her problems with fair realization of the issues involved. In the present case with a girl of limited intelligence, brought up in a broken home of somewhat uncertain influence, with no family circle able to give her consistent moral guidance or material assistance one looks around to see what social resources are available for dealing with the patient. The social side of the case is of importance. If ignored by the community the later evolution of the patient may lead her into an irregular sex life with the attendant complications of venereal disease. Without some support from the community the probability that she will develop a mental condition and require care in a hospital is considerable. Systematic help given to a girl at this period may involve the time of skilled workers and considerable expense but this expenditure may be an economical investment for the community.

P.Q., a girl of 15, for 2 years had been listless, absent-minded, daydreaming and tearful; sensitive to criticism, she would frequently remain away from school. From an early age she had tantrums of temper and she was of somewhat limited intelligence. Her parents had been very solicitous and much of the patient's behaviour seemed to represent an appeal for sympathy to her solicitous parents

who felt quite hopeless in regard to the management of such a problem. When the patient was in the hospital she had the benefit of a stable regime and the opportunity of discussing the significance of her reactions. At the same time it was possible to review with the parents the whole situation and to suggest to them the outlines of a more reasonable discipline for the patient.

The above brief histories of patients admitted to the hospital represent only a few of the many types of disorder treated in the hospital. These few cases, however, may suffice to give some idea of the complexities involved in the task and of the broad issues which are raised by the individual cases. The cases raise problems of internal medicine, problems with regard to infections, cardio-vascular and digestive disorders, gross disturbances of spinal cord and brain; they raise problems of the varied endowment of human nature and of the special degree and type of vulnerability of the individual; they raise questions of the moulding influences in the individual life, the influence of parents, brothers and sisters, of teachers, schoolmates and of the social group; they raise problems of the special abilities and disabilities in the occupational field and of the conditions of work which the patient has to meet; the cases raise problems of success and failure as measured by different standards; they raise questions of the organization of the community, and of the material and cultural satisfaction which is available to people of both sexes, of different ages, of different racial and religious origin, of different cultural levels.

The case records, therefore, can be utilized for wider studies than those dealing with detailed mechanisms of physiological and psychological nature, they can be utilized for the study of important problems in human relations, for an analysis of the factors involved in marriage, in family relations, in social relations in general.

#### ON RESEARCH.

It has been emphasized above that even in the clinical work of the physician on the wards the spirit of investigation must be active if the best work is to be done. The clinical field offers rich opportunity for detailed studies of the nature and course of many types of mental disorders, as well as of the origin and special significance of individual symptoms. For the intensive investigation of specific problems it is frequently necessary to make special arrangements in the wards and to utilize special laboratory procedures; in the reports from those in charge of the various laboratories the nature of the special investigative work that has been done in the past year is outlined.

Dr. Grabfield in his report emphasizes the fact that during the past year the laboratory of internal medicine has been more intimately associated with the clinical study of the patients on the wards than had been the case in previous years. In addition he refers to the role which this laboratory plays in the special study of stuporous conditions undertaken by Dr. Solomon, and in the study by Dr. Bowman of the reaction of agitated and depressed patients to the administration of amniotin and of the reaction of schizophrenic patients to treatment with parathyroid extract.

Dr. Solomon has been enabled by means of a special grant to begin a thorough digest of the results of his treatment of cases of neurosyphilis for the past 15 years. In addition to the continuation of his work on neurosyphilis and to the critical analysis of his results, Dr. Solomon has made a series of interesting observations on the reaction of epileptic patients to dehydration and on that of stuporous patients to the inhalation of carbon dioxide, as well as on some details in the malarial paroxysms of cases under treatment for paresis.

The report from the Psychological Laboratory mentions in brief compass a series of investigations concerning special methods for testing the more general and the more specific abilities of individuals, the correlation of many psychometric tests in frequent use, the special analysis of the difficulties of school children in learning to read and the special value of certain clinical tests.

In the report from the Neuropathological Laboratory Dr. Fulstow refers to some of the cases which have come to autopsy during the past year. Owing to the inadequate technical assistance in the laboratory it is not possible to work up in adequate detail the pathological material which comes from the Psy-



chopathic Hospital and from other state hospitals and until the personnel in the laboratory is increased the study of the finer structural changes in cases of mental disorders cannot be carried on as actively as the importance of the topic demands.

In previous annual reports reference has been made to a special piece of clinical and social investigation, dealing with that type of mental disorder which furnishes the largest proportion of the chronic patients in mental hospitals. This group of patients with the diagnosis of schizophrenia is especially characterized by the eccentric and bizarre nature of the patient's behaviour and utterances, which make him seem so alien to the normal individual. It is the queer and unintelligible reactions of patients of this type which, to a large extent, impress the layman and many physicians with the unintelligibility of mental disorders. The problems of these cases are the central problems of psychiatry, and in every psychiatric centre different aspects of the problem have been made the subject of investigation. Investigators have scrutinized the physical condition of patients to find some clue to the disorder; others have studied the original endowment of the patient to see whether the disorder might be the result of some constitutional law; others have studied those factors in the environment which have moulded the personality and which have subjected the patient to important stress and strain. With the aid of a grant from the Laura Spelman Rockefeller Memorial it has been possible to carry on during the past few years a statistical analysis of the records of cases of this type. Professor E. B. Wilson of the Harvard School of Public Health has continued to cooperate closely in this study. A few papers have already been published dealing with this research but the material will still furnish a program of several years duration. It may be of some interest to mention the topics which come up for scrutiny in this statistical analysis. The factors which are being scrutinized, as possibly relevant to the development of this disorder are — physical symptoms; environmental or social stresses and strains; early home influences (broken homes, relation of parents); influence of schoolmates; conditions of work and recreation; indulgence in alcohol; racial and religious affiliations; duration of residence in the United States; level of intelligence as indicated by standard tests; type of personality as analyzed according to a special psychiatric outline.

The results from the study of many of these factors may be meagre but the whole investigation, besides promising to yield some results of value, has the additional benefit of making the analysis of new cases much more precise and better focused upon the main issues.

#### ON THE NURSING SERVICE, THE DEPARTMENT OF OCCUPATIONAL THERAPY AND THE SOCIAL SERVICE DEPARTMENT.

In the early part of this report reference has been made to the importance of these ancillary services and their coordination with the general medical work. The system by which affiliated nurses spend a period of their training in the Boston Psychopathic Hospital has continued to justify itself; the arrangement is of benefit to the Boston Psychopathic Hospital and it sends back to the general hospitals a group of nurses who have had some experience at first hand with the management of nervous and mental patients. The interest of these nurses, as a rule, is gratifying. They bring a certain freshness and enthusiasm into the wards which is tonic and beneficial; contact with the human difficulties which preoccupy the patients offer a challenge to their ingenuity, somewhat different from that made by the symptoms which have confronted them in medical and surgical wards. The gradual infiltration of the nursing profession with nurses who have had first hand contact with the problems of mental nursing, and who have a wholesome attitude towards the facts of mental disorder, cannot but have an important influence in time on the whole of the nursing profession.

In the Department of Occupational Therapy the work has been continued during the past year with the same high degree of excellence and evidence of ingenuity and thought which has characterized the department in previous years. The structure and personnel available do not make it possible for the patients to have as long a daily period of work as one would like, but with the resources at

the command of the hospital an effort is made to create in the occupational workshops and in the wards an atmosphere of constructive activity.

The problem of the mental hospital patient has a social aspect which is more in evidence than that of the ordinary hospital patient, for the mental disorder itself is often to be understood only in the light of the environment and life situation. The mental disorder, therefore, cannot be understood from the study of the isolated individual but requires to be supplemented by a careful survey of the situation in which the patient broke down. The patient has only made a satisfactory recovery when he is able to face the tests of outside life, and the situation which he has to meet may require careful scrutiny. In the analysis of the environmental factors which have led to the mental upset and in the supervision of the patient in his or her first steps towards resumption of normal life and activity the physician needs the assistance of the psychiatric social worker.

During the past year the work of the Social Service Department has continued to be arduous as more demands are made upon it than its limited personnel can meet even with the assistance of students in training. During the past year the special research project above referred to required the services of four additional social workers with whose help it was possible to make a study of the environmental factors in the selected group of cases more accurate than would otherwise have been the case. The pitfalls in psychiatric work are numerous and may be illustrated by the case of a patient who, during her psychosis, told of a dramatic experience in the life of a relative upon whom apparently she had patterned her own recent behaviour. Unfortunately, this proved a false clue to the behaviour of the patient for on a review of this case 2 years later in the course of the special research project it was found that the dramatic experience was a purely imaginative drama of a relative who had never existed. It is, therefore, of very great value to have statements as to home and occupational situations checked up in detail by competent psychiatric social workers.

#### ON THE OUT-PATIENT DEPARTMENT.

While the main emphasis of the hospital work is laid on the patients who are admitted to the wards for study and treatment, the Out-Patient Department plays a very important role in regard to the health of the community in general. It is perhaps through contact with the Out-Patient Department that the community in general, the social worker, the medical student and the physician get the truest picture of modern psychiatry. In the Out-Patient Department the greatest variety of difficulties are dealt with, the one common factor being that for the study of the patients one must go beyond the review of the physical organs, and study the personality of the patient with due attention to the instincts and the emotions, the imagination and the intelligence, the special abilities and disabilities. In the Out-Patient Department the problems presented may be physical invalidism, marital incompatibility, delinquency, spells of the blues, diffuse or specific fears, nervous habits, difficulty in concentration, fear of insanity, worry over heredity, tantrums, night terrors, running away from home, lack of docility, difficulties in regard to the sexual life. The patients come from very varied sections of the community and come to the Boston Psychopathic Hospital through various channels. Some are referred by the numerous welfare organizations, some by physicians, others are referred by friends or have heard in some lecture of the role of the hospital. The coordination of the work of the Out-Patient Department with other welfare organizations is a matter that requires mutual understanding and consideration, and compromise may sometimes be necessary. Where a difficult child is found in the destitute home of a woman requiring care, it may not be easy to decide the respective role of the welfare worker, the district nurse, the mental hygiene supervisor, the psychiatric social worker. Special attention is being given to this problem and a survey of the actual needs of the community, of the resources at present available and of the coordination of these resources will help to clarify the situation.

In concluding I wish to express my appreciation of the good will and co-operative spirit of those who are associated with me in the work of the Boston



Psychopathic Hospital. The thanks of the staff are especially due to the consulting physicians who give so generously of their time and whose advice means so much to the resident staff. The smooth running of the hospital is a tribute to the efficiency and tact of the Chief Executive Officer whose relations with the other members of the staff make cooperation easy. The conscientious work and keen investigative interests of the members of the staff deserve to receive recognition. The members of the Board of Trustees have in the past year, as in previous years, been extremely cooperative and anxious to be of service whenever possible, and Dr. Kline, Commissioner of Mental Diseases has continued to show the same interest in maintaining the best standards and to give his support to all progressive work.

Respectfully submitted,

C. MACFIE CAMPBELL, *Medical Director.*

## REPORT OF THE OUT-PATIENT DEPARTMENT.

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith submit the report of the Out-Patient Department for the year ending November 30, 1929.

The work of the Out-Patient Department has consisted of the examination and treatment of an average of eight patients a day. During the year, 1,049 new patients were examined and it is with this group that this report is concerned.

The patients may be divided into the following groups:

A. Children:—1. Feeble-mindedness. 2. Conduct problems. 3. School problems. 4. Cases for adoption. 5. Psychometric tests in special cases. 6. Vocational guidance.

B. Adults:—1. Feeble-mindedness. 2. Nervous disease; functional and organic. 3. Mental diseases, usually incipient. 4. Neurosyphilis. 5. Vocational guidance.

C. Other Activities:—1. Brookline School Clinic. 2. Teaching of special students in psychiatry, social service and psychiatric nursing.

*Feeble-mindedness:* In considering the problems of children feeble-mindedness looms large, 151 cases. We shall return to this subject later.

*Conduct Problems:* Physical, psychological and mental examinations have been made and advice based on psychiatric opinions has been furnished to courts, schools and social agencies. There were 77 of these cases of which 40 were followed by the clinic. Truancy, its causes and results, was studied in numerous cases. Whereas feeble-mindedness is one of the most common causes of truancy, too high intelligence is sometimes a factor and more frequently special disabilities, such as inability to read.

There were approximately 25 cases of non-readers among school children. The tutoring of nine of these cases has been supervised by Mr. R. A. Young of the Psychological Department. In other cases instructions and directions have been given parents and teachers for helping these children.

Problems due to mental complexes in children have been relatively few but these have been outstanding and among the more difficult cases to treat. Physical and economic difficulties to be overcome in the frequent visits necessary for this study are a serious factor.

Feeble-mindedness has been one of the most common problems, both in children and adults. Feeble-mindedness is a factor in many cases of family difficulties. It often results in sex delinquency, with spread of venereal disease and illegitimate pregnancy. Feeble-mindedness, coupled with delinquency, furnishes many of the problems in the common terrain of criminal law and mental medicine.

The demands for vocational guidance have become more common. Younger adults and adolescents have consulted the clinic on their own initiative; other adults have been referred by social agencies as an aid to their program. Unfortunately, many of the older individuals referred for vocational guidance have been found feeble-minded or nearly so and therefore unable to profit much from the results of the tests.

The social service of the clinic is one of its most valuable departments. The value of its follow-up work is substantial and far reaching and difficult to estimate. The Social Service Department alone has followed up 450 cases. Other social agencies have followed other cases in which the functions of the clinic have been only diagnostic and advisory.

The work of the School Clinic Survey in the past two years has been in charge of Dr. Mary Palmer. This year's work is not yet complete. The work of last year was as follows:

#### SCHOOL SURVEY OF BROOKLINE SCHOOLS 1928-1929.

*School Clinic Staff:* Dr. Mary Palmer, Psychiatrist; Mrs. Gertrude Pierce, Teacher; Miss Wilda Rosebrook, Psychologist; Miss Ethel A. Gleason, Social Worker.

##### *Names of Schools and Number of Students Referred.*

Baldwin . . . . .	6	Longwood . . . . .	1
Cabot . . . . .	1	Parsons . . . . .	1
Devotion . . . . .	9	Pierce . . . . .	24
Driscoll . . . . .	7	Winthrop . . . . .	7
Heath . . . . .	21	Runkle . . . . .	35
Lawrence . . . . .	9	Sewall . . . . .	3
Lincoln . . . . .	17		

Total . . . . . 141

Additional for school tests only . . . . . 5

146

Pupils in Survey first time . . . . . 89

Boys . . . . . 59 Girls . . . . . 30

Pupils in previous Survey . . . . . 52

Boys . . . . . 39 Girls . . . . . 13

Cases referred for Social Service Investigation . . . . . 95

Summary of Results from the point of view of the Intelligence Quotient:

I. Q. 70 or below		I. Q. 71 - 80	
Boys	Girls	Boys	Girls
9	4	20	13

I. Q. 81 - 90		I. Q. 91 - 100		I. Q. 100 or Above	
Boys	Girls	Boys	Girls	Boys	Girls
23	8	30	13	14	5

There is great need of vocational training opportunities for boys with I. Q. 70 - 90. The girls can be referred to the Boston Trade School. The boys have only the Mechanics Arts course in high school which is too difficult for the lower I. Q.'s, i. e. the 70 - 80 group.

On the basis of chronological age, using  $6\frac{1}{2}$  years in first grade, as a standard:

50 students were 1 year retarded.

54 students were 2 years retarded.

17 students were 3 years retarded.

4 students were 4 years retarded.

Group showing retardation of 1 year:

1 student had an I. Q. of 70 or below.

8 students had an I. Q. of 71 - 80.

11 students had an I. Q. of 81 - 90.

10 students had an I. Q. of 100 or above.

Group showing retardation of 2 years:

1 student had an I. Q. of 70 or below.

18 students had an I. Q. of 71 - 80.

16 students had an I. Q. of 81 - 90.

17 students had an I. Q. of 91 - 100.



## Group showing retardation of 3 years:

9 students with an I. Q. of 70 or below.

4 students with an I. Q. of 71 - 80.

4 students with an I. Q. of 81 - 90.

## Group showing retardation of 4 years:

4 students with an I. Q. of 71 - 80.

A study of reading ability in the case of each pupil was made with the co-operation of the Psychology Department of the Boston Psychopathic Hospital.

Fifty-five (55) children were found to be below grade in reading. Out of these, 18 children had an I. Q. of 91 - 108. These represent promising material for remedial instruction under the psychological department of the Boston Psychopathic Hospital.

## STATISTICS OF THE OUT-PATIENT DEPARTMENT.

October 1, 1928 — September 30, 1929.

TOTAL NEW CASES	.	.	.	.	.	.	.	.	1,135
Out-Patient Department	.	.	.	.	.	.	.	.	1,049
Syphilis Clinic	.	.	.	.	.	.	.	.	86
New Patients:						Male.	Female.	Total.	
Adults	.	.	.	.	.	209	231	440	
Adolescents	.	.	.	.	.	73	122	195	
Children	.	.	.	.	.	254	160	414	
						536	513	1,049	
Plus:									
Syphilis patients	.	.	.	.	.	42	44	86	
Total	.	.	.	.	.	578	557	1,135	

## Nationality.

	M.	F.	T.		M.	F.	T.
African	12	23	35	Italian	62	50	112
Albanian	3	0	3	Jewish	65	43	108
American	284	262	546	Lethish	1	0	1
Armenian	2	5	7	Lithuanian	2	4	6
Austrian	0	1	1	Polish	10	8	18
Canadian	19	34	53	Portuguese	2	3	5
Danish	0	1	1	Rumanian	1	0	1
English	14	8	22	Scandinavian	1	0	1
Finnish	2	1	3	Scotch	3	2	5
French	6	8	14	Spanish	1	0	1
Greek	4	9	13	Swedish	7	4	11
Indian	0	1	1	Syrian	1	0	1
Irish	33	46	79	Turkish	1	0	1
					536	513	1,049

## Occupation.

At home	.	.	.	.	.	.	.	302
Housewife	.	.	.	.	.	.	.	88
Domestic	.	.	.	.	.	.	.	30
Mother's helper	.	.	.	.	.	.	.	11
Waitress	.	.	.	.	.	.	.	2
Restaurant work	.	.	.	.	.	.	.	2
Nurse	.	.	.	.	.	.	.	5
Hairdresser	.	.	.	.	.	.	.	1
Baker	.	.	.	.	.	.	.	3
Barber	.	.	.	.	.	.	.	2
Upholsterer	.	.	.	.	.	.	.	2

Factory work . . . . .	29
Laundry work . . . . .	1
Milkman . . . . .	1
Shoemaker . . . . .	3
Janitor . . . . .	2
Farmer . . . . .	2
Laborer . . . . .	18
Bricklayer . . . . .	1
Stableman . . . . .	1
Carpenter . . . . .	5
Painter . . . . .	2
Plumber . . . . .	5
Steamfitter . . . . .	2
Tailor . . . . .	2
Mechanic . . . . .	7
Electrician . . . . .	5
Teamster . . . . .	2
Chauffeur . . . . .	5
Motorman . . . . .	1
Fireman . . . . .	1
Porter . . . . .	2
Engineer . . . . .	3
Railroad worker . . . . .	1
Coast guard . . . . .	1
Gas station attendant . . . . .	1
Shipper . . . . .	2
Letter carrier . . . . .	1
Delivery boy . . . . .	5
Paper boy . . . . .	2
Grocery clerk . . . . .	1
Butcher . . . . .	1
Pedlar . . . . .	2
Salesman . . . . .	9
Saleswoman . . . . .	5
Insurance agent . . . . .	1
Collector . . . . .	1
Salvation army cadet . . . . .	1
Telegrapher . . . . .	1
Jeweler . . . . .	1
Confectioner . . . . .	1
Printer . . . . .	1
Office work . . . . .	20
Interior decorator . . . . .	1
Florist . . . . .	2
Photographer . . . . .	1
Broker . . . . .	1
Dentist . . . . .	1
Bacteriologist . . . . .	1
Chemist . . . . .	1
Artist . . . . .	1
Musician . . . . .	2
Occupational therapist . . . . .	1
Social worker . . . . .	1
Teacher . . . . .	5
Student . . . . .	425
Total . . . . .	1,049

*Referred by*

	Male.	Female.	Total.
Psychopathic Hospital . . . . .	12	4	16
Other hospitals . . . . .	80	91	171
Local physicians . . . . .	82	46	128
Social agencies . . . . .	177	254	431
Schools . . . . .	43	19	62
Courts . . . . .	18	6	24
Church . . . . .	1	0	1
Relatives and friends . . . . .	76	62	138
Own initiative . . . . .	47	31	78
Total	536	513	1,049

*Problems.*

During the past year, patients have been referred to us for aid in solution of the following types of problems:—

Complete routine examination, placement, vocational guidance, mental retardation, question of chorea, behaviour problem, sex delinquency, neurotic traits, speech difficulty, reading difficulty, personality problem, question of psychosis, somatic complaints, insomnia, worries, memory defect, dizziness, headaches, depression, suicidal tendencies, post-encephalitic condition, question of epilepsy, after-care, house patients, irresponsibility, masturbation, brain tumor, fears, alcoholism, inability to concentrate, lack of ambition, seclusiveness, domestic difficulties, night terrors, sleep walking and sleep talking, tremor, confusion irritability, court charges.

*Diagnosis.*

	Male.	Female.	Total.
Manic-depressive, depressed . . . . .	23	27	50
Manic-depressive, manic . . . . .	1	4	5
Dementia praecox . . . . .	23	13	36
Paranoid condition . . . . .	8	4	12
Psychosis due to drugs and other exogenous poisons, acetanilid . . . . .	1	—	1
Alcoholic psychoses . . . . .	3	—	3
Psychoses with other brain or Nervous disease . . . . .	5	1	6
Post-traumatic psychosis . . . . .	1	—	1
Undiagnosed psychoses . . . . .	5	7	12
Senile psychoses . . . . .	—	1	1
Post-encephalitic condition . . . . .	5	0	5
Hydrocephalus . . . . .	2	—	2
Organic nervous disease, borderline intelligence (hemiplegia) . . . . .	—	1	1
Organic diseases of the central nervous system . . . . .	3	2	5
Endocrine disorder . . . . .	1	3	4
Without psychoses, other brain or nervous diseases, type undetermined . . . . .	3	2	5
Paget's disease . . . . .	1	—	1
Brain tumor . . . . .	—	1	1
Cephalalgia (migraine) . . . . .	—	1	1
Epilepsy . . . . .	14	7	21
Psychoneuroses . . . . .	45	36	81
Chorea . . . . .	—	1	1
Paraluis agitans . . . . .	1	—	1
Neurosyphilis . . . . .	7	2	9
Constitutional psychopathic inferiority . . . . .	16	23	39
Homosexuality . . . . .	1	—	1
Exhibitionism . . . . .	1	—	1
Sex infantilism . . . . .	1	—	1
Without psychoses, headache . . . . .	1	—	1

Conduct disorder . . . . .	38	39	77
Neurotic child . . . . .	27	13	40
Speech defect . . . . .	6	3	9
Reading defect . . . . .	5	-	5
Normal child . . . . .	5	6	11
Superior intelligence . . . . .	30	25	55
Average intelligence . . . . .	63	89	152
Dull normal intelligence . . . . .	57	65	122
Borderline intelligence . . . . .	32	34	66
Mental deficiency . . . . .	73	78	151
Alcoholism . . . . .	4	-	4
Without psychoses . . . . .	1	6	7
Diagnosis deferred . . . . .	23	19	42
	<hr/> 536	<hr/> 513	<hr/> 1,049

*Disposition.*

Treatment in the Out-Patient Department . . . . .	330	243	573
Admitted to the Psychopathic Hospital . . . . .	44	29	73
General Hospital . . . . .	4	2	6
Institution for F. M. Advised . . . . .	8	2	10
State Hospital Advised . . . . .	8	7	15
Report to Social Agency . . . . .	131	227	358
Report to Court . . . . .	11	3	14
	<hr/> 536	<hr/> 513	<hr/> 1,049

*Visits.*

Total visits . . . . .			2,505
Visits of new patients . . . . .		1,436	
Out-Patient Department . . . . .	1,350		
Syphilis Clinic . . . . .	86		
Visits of old patients . . . . .		1,069	
Clinic days . . . . .			302
Average attendance per day . . . . .			8

*Visits per Month.*

New patients:	Visits per Month.	Old Patients	Visits per Month.
1 . . . . .	822	1 . . . . .	474
2 . . . . .	184	2 . . . . .	112
3 . . . . .	18	3 . . . . .	57
4 . . . . .	19	4 . . . . .	15
5 . . . . .	4	5 . . . . .	14
6 . . . . .	1	6 . . . . .	10
10 . . . . .	1	7 . . . . .	4
	<hr/>	8 . . . . .	1
	1,049	9 . . . . .	1
		15 . . . . .	1
			<hr/>
			689

Clinical staff meetings have been held twice weekly. The discussion of problems presented at these meetings, presided over by the Director, has been of distinct value to the patient and of keen interest to the staff as well as to the students in psychology and psychiatry.

Respectfully,

OSCAR J. RAEDER, M.D.  
Chief of Out-Patient Department.



The staff during the year has been as follows:

Dr. Oscar J. Raeder, Chief of Out-Patient Department.

Dr. Mary Palmer, Assistant Physician.

Dr. M. Ralph Kaufman, Acting Chief of Out-Patient Department, April 1, 1929-June 12, 1929.

Dr. Marguerita Ribble, October 6, 1928 to May 31, 1929.

Dr. Marianna Taylor, Tuesday mornings.

Dr. Charles B. Sullivan, Tuesday, Thursday and Saturday mornings.

Students: Conrad Wall, January 1929; William G. Barrett, January 1929; Franklin C. Hugenberger, June 1, 1929 to July 1, 1929; H. H. Hamilton, October 3, 1929 to October 23, 1929; Donald E. Higgins, October 23, 1929 to November 25, 1929.

## REPORT OF THE CHIEF MEDICAL OFFICER.

*To the Medical Director of the Boston Psychopathic Hospital*

I herewith submit the medical report for the year.

One of the most important points to record is the increased use of the X-ray equipment and the marked improvement of that service which has come about since the introduction of our new equipment. As will be noticed from the report of the X-ray technician 726 patients were given X-ray examination during the year. 1,900 patients were admitted but readmissions from visit would cut this down at nearly 1,800 patients. This serves to indicate the extent to which use has been made of our X-ray equipment. All the X-rays of the skull are now stereoscopic as it is felt this is the only satisfactory type of X-ray examination for the purpose. In addition, fluoroscopic examination further increases the value of the equipment.

There has been such an increase in the use of X-ray films that our present allowance is inadequate. It is hoped that the budget for the X-ray department can be increased for the coming year.

Ward A has been kept open continuously through the year so that Dr. Solomon has been able to carry on his therapy work on general paresis uninterrupted.

Ward B has been open for a part of the time, and special biochemical studies of febrile and epileptic states have been carried out. Lack of funds has prevented the more continuous use of this ward for research studies.

Considerable work on the use of carbon dioxide in stuporous cases has been done. A study has been made of the use of ovarian preparations in cases of involution melancholia. A series of such cases has been carefully studied from the standpoint of blood chemistry, basal metabolism, etc. They have then been treated with amniotin, an ovarian extract. standardized by the Doisy-Allen method.

To date no marked effect has been noted from the use of this preparation. It will be continued, however, until we have a larger series of cases from which to draw conclusions.

During the past year, there has been a marked increase in the number of physically sick patients admitted to this hospital. Such patients when once admitted are often in no condition to be transferred and the result has been that at a number of times our wards have been badly over-crowded. It would seem that this hospital is particularly suited for the care and treatment of such patients, but with the high admission rate we do not have sufficient beds to retain all such cases for prolonged treatment. Of particular interest are cases of brain tumor, diabetes, pernicious anemia and heart and kidney disease which are transferred from Boston hospitals because of the mental condition developing during the course of the disease. These cases form an extremely interesting group, and one in which the hospital can be of great service.

Our medical staff has been completely filled through practically the entire year. In addition, we have had volunteer workers so that we have been more amply staffed this year than ever before; lack of space, however, presents a very definite problem, and complicates the work of the hospital.

During the past year it has been possible to carry on more intensive studies of selected cases as a part of a program of research made possible by a grant from the Laura Spelman Rockefeller Memorial Foundation. It has been possible through this grant to secure the services of two psychiatrists, one statistician, four social workers and a clerk to aid in this work.

This research will be continued throughout the coming year. It is essentially a study of Schizophrenia in which the personality and the environmental factors are carefully and critically analyzed.

It is hoped that this study will make a definite contribution to the topic of schizophrenia.

The report of Dr. Dalton, the dentist, follows:

Patients examined . . . . .	1,684
Patients receiving treatment . . . . .	809
Extractions . . . . .	946
Fillings . . . . .	472
Prophylaxis . . . . .	205
Other treatments . . . . .	196

Dental X-rays of 84 patients showed:—

Infection present . . . . .	29
Infection doubtful . . . . .	17
Infection absent . . . . .	38
Impacted teeth . . . . .	9
Unerrupted teeth . . . . .	3
Fourth molars . . . . .	1

Dr. Dalton's report illustrates the fact that the physical side of the problems presented by our patients is receiving every possible attention.

The number of pupil nurses from affiliated hospitals has been increased this year which is a very satisfactory step from the medical standpoint. There is no doubt that the presence of the student nurses leads to improvement in the treatment of our patients.

The X-ray report for the year is given below:

#### Number of Patients Examined in X-ray Department.

	Male.	Female.	Total
December 1928 . . . . .	20	21	41
January 1929 . . . . .	26	16	42
February 1929 . . . . .	23	27	50
March 1929 . . . . .	33	41	74
April 1929 . . . . .	43	33	76
May 1929 . . . . .	63	35	98
June 1929 . . . . .	42	29	71
July 1929 . . . . .	30	35	65
August 1929 . . . . .	33	17	50
September 1929 . . . . .	21	25	46
October 1929 . . . . .	27	25	52
November 1929 . . . . .	19	42	61
	381	345	726

Respectfully submitted,  
KARL M. BOWMAN, *Chief Medical Officer.*

#### PUBLICATIONS.

- Bowman, K. M. "Religious Problems in Clinical Cases. " *Religious Education* September 1929.
- Bowman, K. M. "Parathyroid Therapy in Schizophrenia." *Journal of Nervous and Mental Diseases*, October 1929.
- Raymond, A. F. and Bowman, K. M. "Physical Findings in Schizophrenia." *American Journal of Psychiatry*, March 1929.

- Bowman, K. M. and Kasanin, J. "The Sugar Content of the Blood in Emotional States." *Archives of Neurology and Psychiatry*, February 1929, Vol. 21, pp. 342-362.
- Bowman, K. M. "Chapter on Fatigue, Worry and the Blues" — "Keeping Mentally Fit," *Greenberg*, 1929.

## REPORT OF BIOCHEMICAL LABORATORY

*To the Medical Director of the Psychopathic Hospital:*

The routine work of the laboratory, during the past year, has proceeded much as in previous years. The organization has remained essentially the same except for the continuance of Miss Underhill as a part-time chemist to assist Mrs. Kubik, who is on full time. The routine work on the patients has been done largely by the four student internes who have, as always, given good and efficient service. Much of the investigative work of the hospital has required the co-operation of the laboratory, and work has continued on the problems outlined in my last report without, as yet, resulting in publication of results. In the coming year the force on this work will be augmented by the appointment of Dr. d'Elseaux as a fellow in psychiatry. So much for certain tangible aspects of the laboratory work.

In my dual capacity, as Chief of the Laboratory and Consultant in Internal Medicine, I desire to call your attention certain to intangible changes in the hospital work. Some of these changes may be directly traced to the organization of the laboratory on its present basis, which was devised eight years ago.

Sporadic attempts have been made to systematize the physical care of patients suffering from mental disease, but it is only in the last few years that a consistent, steady plan to this end has been developed, and it is this development which I wish to emphasize from the point of view from which I have been able to observe it.

Unquestionably, the time has come when psychiatry and internal medicine can no longer be divorced as previously. Much of our bemoaning of the passing of the general practitioner has been due to the fact, heretofore dimly perceived, that he practiced a rude, instinctive psychiatry. To regain that position occupied by the old general practitioner, internal medicine is turning more and more to psychiatry, and it is my hope that in the years to come, the so-called internist will be able to practice consciously, more accurately and more intelligently the unconscious psychiatry of the old general practitioner. Similarly, as has been emphasized, psychiatry has left the walls of the "insane asylum" and has branched out as a full-fledged specialty, intimately related not only with neurology, but also with internal medicine, and more remotely with the surgical specialties as well. As I understand the situation the laboratory development in the Psychopathic Hospital has been calculated towards the latter end.

Before the laboratory work was organized on the present basis, the laboratory examination of patients was haphazard and only the spinal fluids were examined with any degree of systematic attention. In the first years of the laboratory, there have been chronicled in previous reports the increasing number of laboratory examinations made year by year until finally there has developed a routine approximating, at least, that of a general hospital in the examination of the patients, though modified to suit our special needs. As a result, in the last four or five years, each patient admitted to this hospital has had, at least, urine and blood examinations and most have had a variety of other tests done. Where it was impossible to examine the urine, we have utilized the newer chemical methods of blood analysis to rule out diabetes or advanced nephritis at least. In that way, our patients have been more safeguarded than ever before. With this development, all of us have become keener in detecting the mental symptoms of non-nervous system diseases. On two occasions, in the past year, the laboratory has detected fairly early cases of Addisonian anaemia evidently with central nervous system changes simulating one of the functional psychoses. In regard to those patients acutely ill, of which we have a surprising number, we now have adequate laboratory information available to the clinical staff. I need only mention the daily white counts on all febrile cases to indicate the type of information.



The mention of the clinical staff brings me to a phase of this discussion in which my own interest has been particularly keen. From the beginning, we have struggled against the classical psychiatric attitude of lack of interest in the physical condition of so-called mental patients. It is highly gratifying that in the past year we seem to have reached a spirit, throughout the clinical staff, which takes into consideration not only the patient as a whole, but the detailed functioning of his basal mechanisms. Particularly is this manifest in the type of requisition which appears in the laboratory, and the type of consultations which I am now called to take part in.

At the outset the clinical staff was provided in the laboratory facilities with a machine which they did not know how to use to its best advantage. Gradually, year by year, the use of the laboratory increased until at one period the laboratory was overwhelmed by requisitions, even some for procedures which provided no useful information in the given case. Slowly there has permeated the hospital staff a keen appreciation of precisely the value of each laboratory procedure and it is only rarely now that any request for laboratory procedure is to be questioned. This is clearly evidenced by the fact that, in my capacity as Consultant in Medicine, my work has largely changed from the suggestion of diagnostic laboratory procedures to the advising of therapy and weighing of evidence already acquired. In brief, cases requiring consultation are now presented thoroughly "worked up". This is the end which we have sought and, in the present year, with the present staff, this has been so nearly reached that it is gratifying to be able to record it in this annual report.

In the earlier reports of the laboratory, the work of the student internes has been praised. Since then, we have taken their work more for granted and, yet we perhaps even now do not fully appreciate the conscientious effort that practically all the student internes we have had put forward in the accomplishment of the results chronicled above. These boys work during their spare hours; they maintain their interest and while, to be sure, they are receiving valuable training in the laboratory technique, their work has rarely borne evidence of the drudgery involved. The position itself, while carrying no stipend, has become increasingly popular amongst the students and we have had students from all three medical schools in the City of Boston.

Not least in this whole development, should credit be given to the chemist, Mrs Kubik, and to her assistant, Miss Underhill as full-time workers, who have tied together all the relationships in a singularly able and happy fashion. The position of chemist is the foundation stone upon which the laboratory must rest, both in its research and clinical activities.

As to the former, during the past year a number of unpublished studies have been made; the question of dehydration in epilepsy has been studied to some extent from its metabolic aspects; studies of the passage of bromides into the spinal fluid have been made; treatment of certain cases with "Amniotin", the newly discovered ovarian hormone has been followed; further studies on the effects of carbon dioxide on patients with stupor have been made, and a few scattered pieces of work are in the process of being finished, to be reported in more detail in the succeeding report.

Respectfully submitted,

G. PHILIP GRABFIELD,

*Chief of Biochemical Laboratory.*

## REPORT OF THE PSYCHOLOGICAL LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

The chief psychometric development during the year has been the introduction of the Kuhlmann-Anderson scale as a coordinate with the Kuhlmann-Binet, the Stanford, and other "intelligence" tests in regular use. From the point of view of internal organization the Kuhlmann-Anderson scale is the best available, though scales based on the Binet system retain the advantage of giving a broader, if also more subjective picture. The use of the Kuhlmann-Anderson material in single sheets, instead of in the booklet form, is recommended for purposes like the present.



The general research project on functional transfer and allied topics, named in the last report, was carried out as planned, and the resulting data are now being studied. Mrs. Whitman is in immediate charge of this work, as previously. Among the leads opened by these experiments, Mrs. Bowie is studying one of the special phases of last year's project, a test of "symbolic imagination". Besides continuing his work in reading difficulties, Mr. Young has charge of a proposed revision of the alpha test. Mr. Beck brought to the Laboratory a special interest in the Rorschach test, and continues his studies of this important technique. Each of the Laboratory staff has one or more student assistants, and other studies of a psychometric nature are undertaken by students under the direct supervision of the writer.

It may be noted that with the growth of research activity during the past two years, the laboratory's publications have diminished. The problem of publication is no simple one, and has become of much concern in psychology generally. The available channels of publication are badly clogged, although their number has increased, and their standards are certainly not becoming less rigid. This is not the place to discuss the various psychological bases of the publication urge, but there is no doubt that only a very small percentage of the published material is effective in the advancement of psychological science, whatever other purposes it may serve. The editorial labor of preparing manuscripts can be a very irksome distraction from proper investigative or clinical interests. On the other hand, we have unquestionably a folkway that estimates one's scientific status by publications considered quantitatively rather than qualitatively. Some thought has been given to the problems of publication as related to the Laboratory's own work. Material now gathered is probably "good for" some twenty average papers, at the cost of suspending productive work for some years. This is not because the Laboratory has given disproportionate time to research, though it does plan to give what is necessary to the mental growth of its staff; it is because scientific groups generally have established a custom of publishing far more printed pages in proportion to a given amount of work than can possibly be assimilated. The policy planned here is the publication of rather frequent and quite brief notes of research in appropriate psychological publications, as well as of certain special material in the Departmental Bulletin; though it may be a year before any of this material appears.

The Laboratory continued its cooperation in Psychological Abstracts, the Psychological Index, and the Child Development Abstracts. The writer has continued to serve on the Committee on Experimental Psychology of the National Research Council, and as a director of the Psychological Corporation and the National Institute of Psychology.

Visits have from time to time been made to the psychological laboratories of other institutions in the Department, which it is hoped have been mutually helpful. There has been the usual cooperation in the matter of personnel selection. The writer presided at a session on "Maladjustments" at the International Congress of Psychology in New Haven, subsequent to which the Hospital was visited by a number of the foreign guests.

As to changes in the staff, Mr. R. A. Young resigned as psychologist July 1, 1929, being succeeded by Miss Wilda Rosebrook. Miss Wilda Rosebrook resigned on September 14, 1929, to continue graduate study, Mr. Beck coming as psychologist in her place. Mr. Young returned to the Hospital in September, to continue work on interne status. Mrs. E. C. Whitman continues as psychometrist, and Mrs. Helen Bowie was appointed psychometrist June 10, 1929.

Publications have been as follows:

- Wells, F. L. "Reaction Time and Allied Measures Under Hypnosis: Report of a Case." *Journal of Abnormal and Social Psychology*, Vol. 23, No. 3, October-December, 1928.
- Wells, F. L. "Reaction-Times to Affects Accompanying Smell Stimuli." *American Journal of Psychology*, Vol. 41, No. 1, January, 1929.
- Wells, F. L. "Musical Symbolism." *The Journal of Abnormal and Social Psychology*, Vol. 24, No. 1, April-June, 1929.

F. L. WELLS, *Head Psychologist*.

## REPORT OF NEUROPATHOLOGICAL LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

The Neuropathological Laboratory during the fiscal year ending November 30, 1929 has been in charge of the Pathologist of the Department of Mental Diseases as in the past. During this period there have been 40 deaths and 13 post mortem examinations, a percentage of 33. Four of the cases were autopsied by the Medical Examiner.

There were two cases of brain tumor which came to autopsy. One a glioma situated in the pons. One of the members of the clinical staff intends to do some pathological work on this brain. The other was a rather small tumor firmly attached to the pituitary stalk. It was filled with cholesterin crystals of the usual shimmery appearance. Microscopically its origin did not seem clear until in its wall several small patches of stratified squamous epithelium were seen. This would point to the small groups of epithelial cells sometimes found on the hypophyseal stalk, as the origin. Perhaps the most interesting point about this tumor is its known duration of 29 years.

Four deaths were due to acute infections, one to general paresis, one to miliary tuberculosis, and one to pernicious anemia. The Medical Examiner's cases showed two deaths due to alcohol, and two to fractures with subsequent acute infections.

The Hospital is still without the services of an assistant pathologist. This curtails somewhat the amount of neuropathological work done for the Hospital.

The laboratory has been used by members of the clinical staff for teaching purposes in the courses in brain anatomy which are given to nurses from time to time.

Mr. M. P. Pitock, the interne in Bacteriology, reports the following work done for the hospital wards:—Blood cultures, 37; throat cultures, 3; spinal fluid cultures, 3; urine cultures, 2; stool cultures, 2; smear and culture, 4; widals, 4; throat smears for Vincent's Angina, 9; miscellaneous smears, 7.

Respectfully submitted,

MARJORIE FULSTOW,

*Pathologist, Department of Mental Diseases.*

## REPORT OF THE DEPARTMENT OF THERAPEUTIC RESEARCH

*To the Medical Director of the Boston Psychopathic Hospital:*

The following is an outline of the work carried on under the auspices of the Department of Therapeutic Research for the hospital year 1928-29.

Clinical studies of the methods of treatment of general paresis and neurosyphilis have been continued from previous years. A study of these therapeutic problems has gone on continuously since 1914. During this period, a great deal of work has been done with a variety of methods in the treatment of cases of neurosyphilis, until at the present time we are in possession of methods that give relatively satisfactory results if compared to the situation of only a few years back. Whereas seven or eight years ago we were quite pleased with a relatively good result obtained in 10% of the paretic cases treated, we are now able to obtain even better results in some 30 to 40% of such cases. This, however, is by no means the goal sought, and we must continue to work for an improvement over these results.

During the past year we have devoted a considerable amount of time to the study and development of a febrile method of treatment of general paresis, namely, sodoku fever, which, we believe is original with this clinic. This method is now being investigated to some extent in several clinics in the United States and Europe.

Statistics are being collected in order to determine, as far as may be possible, the relative value of the several methods now employed in the treatment of general paresis. The material coming out of our experience in the treatment of neurosyphilis for the past fifteen years is so extensive that it would seem to merit a report in monographic form.

Funds have been granted to us by the Committee for Research in Syphilis to attempt a study of the effect of early anti-luetic treatment, as usually given in the better grade clinics, on the later course of neurosyphilis, and especially as to its



value in the prevention of general paresis. This study has been well advanced during the current year.

It may be pointed out that once an organization has been evolved that allows for investigative procedures, new problems constantly arise out of those already being studied which could be carried on without undue new expenditure. And again, small additional expenditures will allow for considerable expansion. As already noted, we were fortunate enough to receive a small grant from the Committee for Research in Syphilis. We were also the recipient of funds from the De-Lamar Mobile Research Fund of the Harvard Medical School. With the aid of this latter grant, a piece of work on salt and water metabolism in experimentally produced fevers was carried to completion. Dr. Frank Fremont-Smith of the Department of Neuropathology of the Harvard Medical School collaborated in this Research.

Collaboration and assistance in the development of the Hinton Test was afforded by Dr. A. Berk of this Department. This is a new serological test for syphilis developed by Dr. W. A. Hinton. The importance of this test, from our particular point of view, is that it is apparently capable of giving a positive reaction in almost all cases of neurosyphilis. If the evidence thus far obtained is corroborated, it will be a most valuable means of reducing the use of lumbar puncture.

During the spring, preliminary studies concerning the effect of dehydration on convulsive attacks was undertaken. This work consisted of two parts: (1) observation of the clinical results in this type of treatment, and (2) the effect of dehydration on the metabolism of the patients. This work necessitated a rather elaborate set-up. A small ward of the hospital was made available. A special dietitian and two attendants were required. Dr. G. P. Grabfield, in charge of the laboratory at the hospital, collaborated, and Mrs. Emily Kubik, the hospital chemist, devoted a great deal of her time to this preliminary study. Interesting observations on the reduction of the number of convulsions under this treatment were made, and some very interesting leads concerning the nitrogen, sulphur, and phosphorus metabolism were obtained. We believe that this work should be continued, but until new funds are obtained, this is impractical. The money required, outside of the hospital budget, for carrying out this work this past spring, was obtained from the Department of Psychiatry of the Harvard Medical School.

During the period under consideration, studies were made on the effect of the inhalations of high concentrations of carbon dioxide in certain neuro-psychiatric conditions. Dr. R. M. Kaufman, a Fellow under the Commonwealth Fund, devoted a considerable portion of his time to this work. Part of the expenses incident to this study were defrayed by the Department of Psychiatry of the Harvard Medical School, and part by a grant from the Joseph M. Herman Research Fund. In certain stuporous conditions, the inhalation of carbon dioxide in concentrations of 20 to 40% over a period of two or three minutes caused the patient to come out of the stupor into a state of more or less normal lucidity for a period of one-quarter to one-half hour. This work would seem to give a most important lead in understanding certain phases of psychiatry. This problem is to be studied with considerable elaboration during the coming year.

HARRY C. SOLOMON,

*Chief of Therapeutic Research.*

#### STATISTICS OF SYPHILIS SERVICE (Abbreviated Report)

OCTOBER, 1928 — SEPTEMBER, 1929

House patients:

New.....	147	Ref. from O.P.D.	7	Old.....	65	Total.....	219
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Out-patients:

New.....	26	House	25	Old.....	154	Total.....	206
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Relatives:

New.....	109	Old.....	15	Total.....	124
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Visits made by 273 persons.....	3,336
Number of new and old cases continued for treatment or examination . . .	481
Treatments (O.P.D. and House) . . . . .	2,932
Arsphenamine . . . . . 247	Sodoku . . . . . 18
Bismuth . . . . . 295	Tabetic training . . . . . 12
Drainage . . . . . 4	Tryparsamide . . . . . 1,897
Malaria . . . . . 15	Typhoid Vaccine . . . . . 126
Mercury . . . . . 40	Ventriculographies . . . . . 10
Neoarsphenamine . . . . . 318	
Diagnostic lumbar punctures . . . . .	905
Percentage of families followed who were examined . . . . .	78.89
Percentage of relatives followed who were examined . . . . .	63.91
Percentage of families examined showing evidence of syphilis . . . . .	23.15
Percentage of relatives examined showing evidence of syphilis . . . . .	21.77

#### PUBLICATIONS FROM THE DEPARTMENT

- Solomon, H. C. and Berk, A.: "Prolonged Treatment in Neurosyphilis" *American Journal of Syphilis*, November 1928.
- Berk, Arthur and Tivnan, Paul: "Apparatus for Pneumorachiocentesis. *Archives of Neurology and Psychiatry*, September 1929, Vol. 22, pp. 582-584.
- Hinton, William A. and Berk, Arthur: "A Glycerol Modification of the Kahn Test." *N. E. Journal of Medicine*, Vol. 201, No. 14, pp. 667-670, October 2, 1929.

#### REPORT OF THE CHIEF EXECUTIVE OFFICER

##### *To the Medical Director of the Boston Psychopathic Hospital:*

There have been few changes in the executive routine during the past year. Indeed it would be hardly possible to effect any major changes, if such were desirable, inasmuch as a large part of the executive work consists in complying with the various laws and Departmental regulations relative to the reception and dismissal of patients. The daily amount of work in this respect varies widely, but in looking over records for the year it is found that the executive officers supervised the reception and dismissal of one thousand nine hundred patients, held approximately nine thousand interviews with relatives of patients, and received and sent out approximately fifteen thousand telephone calls relative to the condition and disposition of patients. During the year there were eighteen thousand two hundred and nineteen visits to patients by relatives and friends.

Another major function of the executive department has been the expenditure of approximately two hundred and fifty thousand dollars, divided into the following percentages:

Personal services . . . . .	63.7
Food . . . . .	14.5
Medical and general care . . . . .	7.3
Heat, light and power . . . . .	4.6
Repairs and renewals . . . . .	2.8
Travels, transportation and office expenses . . . . .	2.4
Furnishings and household supplies . . . . .	2.0
Repairs ordinary . . . . .	1.57
Clothing and materials. . . . .	.51
Religious instruction . . . . .	.47
Grounds . . . . .	.15

Under each of these items the appropriation has been ample to maintain usual standards.

It will be seen that the payments for personal services comprise nearly two-thirds of the entire appropriation. This is due to the fact that this hospital maintains a personnel of 160 employees with a daily average patient population of approximately eighty. This proportion of employees to patients at first thought seems rather startling; however, when it is considered that there have been 1,900 admissions and readmissions into the hospital during the year, with 2,505 exam-



inations in the Out-Patient Department, 2,892 treatments given in the Neuro-Syphilitic Clinic, and 1,403 investigations by the Social Service Department, together with approximately 4,000 abstracts of case records sent to other hospitals and various social agencies, it will be seen that a large personnel is necessary. In addition to the above specific enumerations, there are also the matters of teaching and special research, both of which require a very considerable amount of time and a specially skilled personnel. Another factor contributing to the proportionately large pay roll is the inadequate housing facilities for employees. At the present time there are 21 employees who receive in the aggregate the annual amount of \$6,300 in lieu of quarters and maintenance.

There have been few changes in the permanent personnel during the year. Sixty-five have resigned and 18 have been discharged as incompetent for the particular type of work required. (These figures apply to temporary as well as permanent personnel.) About 97 percent. of the full quota has been maintained throughout the year. The morale has been excellent, and no serious difficulties have arisen from lack of cooperation. It is, of course, inconceivable that in a progressive organization there will not be difference of opinion, which in some instances lead to slight temporary friction, but be it said to the credit of every officer at the Boston Psychopathic Hospital, the spirit of cooperation has always prevailed.

The upkeep of the physical plant has been maintained in a fairly satisfactory manner. Much in the way of repainting has been done, particularly since the addition last June of a full time painter to the pay roll, new Rubberstone floors have been laid in six rooms, and fifteen badly corroded iron cold water risers have been replaced by brass piping. The building is now reaching the age where numerous repairs and replacements will soon become necessary, and the employment of two carpenters instead of one will be required to keep the building up to desired standards of repair.

The new X-ray equipment has been in operation for about ten months, and has proved entirely satisfactory and a big improvement over the old equipment. Considerable new equipment has been added to the kitchen and dining room service, and many minor betterments have been added here and there.

While responsibility for the treatment and general comfort of the patient population rests largely with the Medical Staff under the immediate direction of the Chief Medical Officer, important executive functions are to provide food, clothing, housing, and ward personnel. No pains or expense have been spared in these important matters.

My thanks to the State Department of Mental Diseases for guidance and support, to the Board of Trustees and Medical Director for advice and co-operation, and to each employee for faithful service are due and hereby acknowledged.

Respectfully submitted,

ARTHUR N. BALL, M. D.

*Chief Executive Officer.*

## REPORT OF SOCIAL SERVICE DEPARTMENT

*To the Medical Director of the Boston Psychopathic Hospital:*

During the last year with the exception of a period of a few months there has been a full staff. Miss Dorothy Stebbins, who was appointed on December 1, 1928, left on March 15, 1929 to become chief worker at the Habit Clinics, an organization in which she had trained as a student. In June, her position was filled by Mrs. Anne G. Beck, a Master of Arts student from Columbia University and a special student of the New York School of Social Work.

In May of 1929, Miss Dorothy Whittaker left after one year and nine months service in the Syphilis Department. Her position was filled on August 5, 1929, by Miss Charlotte Nicklin, a graduate of Mt. Holyoke College.

In addition to the regular staff there have been four students working part time under the Simmons School of Social Work and part time under the Laura Spelman Rockefeller Memorial fund on cases of schizophrenia, manic-depressive psychoses and general paresis. They have obtained supplementary information on person-

ality traits and environmental conditions, which material has been added to the information collected by the physician from relatives and patients to make a more complete life picture of the patient. Six months after the date of discharge, patients so studied have been visited in order to ascertain the degree of their present adjustment and to obtain further information if such has been found lacking during a review of the case. Several patients already visited have been found to be getting along so well in the community that the original diagnosis has been challenged.

Throughout the year eleven students from the Simmons School of Social Work have spent several days a week, three months at a time, working in the department, handling a few new cases and reviewing cases studied by other workers.

The increased staff has enabled the department to double practically the number of cases carried during previous years. There are still many patients, however, such as those who leave the hospital against advice and "on visit" who need supervision but cannot be followed by the department unless there is an enlarged staff.

The question is raised frequently as to whether a hospital in which the majority of patients stay less than ten days and where only about fifty patients a year are discharged under the legal supervision of the hospital for a trial visit of a year can give opportunities for workers to have under social supervision cases which have been studied for at least several months. A review of the patients under the care of the department shows that a large number of the cases under intensive supervision have resided in the hospital for from three to ten months. Many of these have reported to the Out-Patient Department during the several years they have been outside of the hospital. Another group who were in the hospital for only a week or so have been followed by the Social Service Department for periods varying from one year to ten years.

H. S., a married woman of fifty, a case of manic-depressive psychoses with alternating manic and depressive attacks, had two admissions of ten days duration in 1918. Later, she was sent to the Boston State Hospital where she remained for several months, being then discharged to the Out-Patient Department of this hospital, the former hospital having no such department. Recently, she was readmitted to the Boston State Hospital upon the advice of the Out-Patient Department.

During the periods when she has not been sick enough to be in a hospital she has been a great annoyance to her family because she is a poor house-keeper, very extravagant in her buying, spending all day frequently at church, being over-solicitous of her grown daughters, not wishing them to be out of the house in the evening. The social worker has served as an interpreter of the patient to her family, of the family to the patient, has arranged vacations for the patient which have proved to be of great value to the family also.

During this last year more cases have been carried on a co-operative basis than previously. Sometimes both the Social Service Department and the outside agency have been visiting the family at the same time. On other cases the outside agency has remained inactive while the Social Service Department has been active and again the opposite arrangement has been carried out. Such a contact is of benefit to both agency and hospital, each having an opportunity to evaluate the contributions which the other gives to the case. Twenty-five different agencies, covering all forms of case work, medical, family, children's, relief, preventive, have had cases supervised in this way.

As usual, the investigation of the cases sent to the hospital from the courts has occupied a large part of the time. About 150 cases from fifteen different courts arrested for all types of offences such as intoxication, forgery, assault and non-support were investigated. Some of the cases had already been found guilty and were sent to the hospital for examination to ascertain whether they should be declared responsible for the misdemeanor committed. Others were sent to find out whether they were capable of standing trial.

About thirty percent were found to be in need of immediate care in mental hospitals. Investigation revealed often that some of these individuals were very dangerous.

H. B., an unmarried man of 34, was sent to the hospital following arrest after an unprovoked assault with a razor on a high school boy who was walking along the street. During his hospital residence he was evasive and asked frequently why the examination was being made, would give no explanation of his behavior. There were no hallucinations. Outside investigation indicated that patient lived alone, had no friends, used an assumed name, thought that people stole things from his room. Letters and writings found in his room showed that he felt that he belonged to royalty. A diagnosis of schizophrenia was made and recommendation sent to court that the patient was insane and committable with a chronic type of mental disorder. Patient was returned to jail where he remained two months for a hearing before the Grand Jury. At that time he was adjudged guilty but insane and committed to a State Hospital.

Other patients while found to have been suffering from mild mental disorder were thought to be sufficiently normal to stand trial. In such cases, however when the history revealed that the patient was greatly upset at the time of committing the crime a lenient sentence was imposed.

G. M., an unmarried man of 36, was sent to the hospital because he had forged checks and was found carrying a revolver. Investigation revealed that he had no previous court record but had been extremely depressed on various occasions. Shortly before arrest he had planned to commit suicide and had decided to have one "last fling." He had no money, so he forged his cousin's name to some checks. During hospital residence he improved greatly and was returned to the court as normal where sentence was changed from several months in the House of Correction to probation.

Many other illustrations could be given proving the value of psychiatric examination and social investigation as a means of determining proper disposal of those who have offended against the law.

Contributions have again been received from the Junior Red Cross, The Junior League and The South Friendly Society of the First Unitarian Church and other interested individuals.

Respectfully submitted,

ESTHER C. COOK,

*Head Social Worker.*

### SOCIAL SERVICE STATISTICS

DECEMBER 1, 1928 TO NOVEMBER 30, 1929.

1. Total Cases for Year . . . . .	1,403
New Cases . . . . .	1,172

	<i>Intensive</i>		<i>Slight Service</i>	
	Minors	Adults	Minors	Adults
House (30 % of admissions) . . . . .	100	249	36	85
Out-Patient (25 % of admissions) . . . . .	174	54	125	94
Research . . . . .	2	128	—	71
School Survey . . . . .	114	—	—	—

#### 2. Continued Cases, 231:—

House . . . . .	22	33	—	25
Out-Patient . . . . .	36	28	21	6
Research . . . . .	—	35	—	25

#### 3. House Cases:

Investigation:— Court cases, 159; Outside history because no informant came to hospital, 102; Contradictory evidence, 56; Additional social information, i.e., court records, employment, etc., 267.

After-care visiting:— Doing well, 89; Not improved, 68; Readmitted to hospital, 23; Institutional care, 7; Died, 3.

Case work:—including financial assistance, adjustment in industry, placement in home, etc., 202.



## 4. Out-Patient Cases: —

Investigation of court cases, 29; History, 45; Slight service including reference to agencies, consulting with agencies, personal service, 185; Case work, 117.

## 5. Outstanding Social Problems:

## Diseases: —

Mental . . . . .	329
Physical . . . . .	71

Personality problems, including temperament, vacillating interests, instability . . . . .	254
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Sex problems . . . . .	79
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Legal problems, including larceny, assault, forgery, etc. . . . .	118
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## Environmental:

Financial difficulties . . . . .	116
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Employment . . . . .	112
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Marital difficulties . . . . .	129
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Unsuitable surroundings, broken home, friction in the home, inadequate physical surroundings, immoral parents . . . . .	178
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6. Expense. . . . .	\$479.78
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## SOCIAL SERVICE STAFF.

Head Social Worker, Esther C. Cook, July 1, 1928. Assistants in Social Service: Villa T. West, June 11, 1928; Ethel A. Gleason, June 11, 1928; Ethel Goodwin, July 8, 1928; Dorothy Stebbins, December 1, 1928, resigned, March 15, 1929; Anne G. Beck, June 25, 1929. Syphilis Follow-up workers: — Dorothy Whittaker, September 26, 1927, resigned, June 1, 1929; Charlotte Micklin, August, 5, 1929.

## REPORT OF THE PRINCIPAL OF THE SCHOOL OF NURSING

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith present the annual report of the Nursing Department for the year ending November 30, 1929.

*On Nursing Service:* Principal of the school of nursing, 1; assistant principal of the school of nursing, 1; nurse instructor (full time), 1; female supervisor (night), 1; male supervisor (day), 1; assistant supervisors, 2; head nurse, operating room, 1; head nurses, wards, 6; assistant head nurses, 2; student nurses, 14; hydrotherapists, 2; female attendants, 8; male attendants, 14.

*Head Nurses resigned:* Mrs. Violet Churchill, Miss Caroline Slade, Miss Margaret Davis, and Miss Elva Russell.

*Head Nurses appointed:* Miss Mary Johnson, Mrs. Mary Byrne, Miss Margaret McKay and Miss Dorothy Allen. Miss McKay a graduate of the Cambridge Hospital and Miss Allen a graduate of the New England Baptist Hospital, both took the affiliated course here.

During the year 50 affiliated student nurses completed the course in psychiatric nursing.

*Special Nursing:* Number of special nurses, 33. Total number of weeks in wards, 45.

*Hydrotherapy:* Tonic baths, number of patients, 247; foot baths, 948; salt glows, 761; saline baths, 181; sitz baths, 97; electric light baths, 508; hot and cold applications to spine, 34; wet sheet packs (as preparatory treatment), 13; tub shampoos, 586; head shampoos, 450; needle sprays, 3,180; fan douches, 3,180; jet douches, 814; rain douches, 450; scotch douches, 79; continuous baths. Number of patients, 449. Number of baths, 2,410. Number of hours, 17,711.

Wet sheet packs, number of patients, 50; number of packs, 146. Number of hours, 436.

Instruction in wet sheet packs and tonic baths was given to 74 nurses. Number of lessons, 459. Number of hours, 474.

In May of this year we started an affiliation with the Winchester Hospital, Winchester, Mass. This hospital has agreed to send us two student nurses every three months.



In October the Beth Israel Hospital discontinued affiliation on account of the shortage of nurses, due to the opening of their new hospital. They are taking in larger classes of students and hope to be able to renew affiliation in 1931.

The Winchester Hospital is sending us four student nurses the first of February instead of two, and may continue to do so throughout the year. This will supply the shortage caused by the temporary withdrawal of the Beth Israel students.

October first we accepted Miss Judkins a nurse from the Ellis Hospital, Schenectady, New York, for a three months course in psychiatric nursing. She receives no remuneration as her own hospital provides a special fund for this course, which is elective.

This department shows a steady growth and every effort is being made to increase its efficiency. With better nursing facilities, many of our difficult nursing problems have been met more satisfactorily, especially in caring for our overactive physically ill patients who require constant vigilance and careful nursing.

The Head of the nursing service takes this opportunity to express her appreciation for the encouraging and kindly support of the Medical Director and Chief Executive Officer, to the Medical Staff for the splendid spirit shown in giving so much of their time in lecturing to the student nurses, also for the cooperation which has been shown by the other departments of the hospital.

Respectfully submitted,

MARY FITZGERALD,

*Principal of the School of Nursing*

## REPORT OF THE DEPARTMENT OF OCCUPATIONAL THERAPY

*To the Director of the Boston Psychopathic Hospital:*

The Occupational Therapy Department has carried on its usual activities and closes the year with the hope that it is in a good position for further advance. We have been especially interested in the group of patients who remain in the hospital for periods of more than ten days. We feel that especial provision should be made for this group during their hospital residence. We are hoping to be able to cooperate more closely with the physicians in charge and to make an effort to arrange a more consistent program for this group. For the transient patient the principal things attempted are the establishment of confidence in the hospital regime and the continuance of normal interests and activities.

We have been fortunate since July in having with us students from the Boston School of Occupational Therapy. These students have received part of their training in Occupational Therapy with mental patients in this department. We are always glad to receive students as they bring fresh interests, they also make it possible to carry on to better advantage the occupational work on Ward 3 and to give special attention to certain patients who are in particular need of work of this type. The hospital training course serves these students as a bridge across the gap that separates the theory of the school from actual hospital practice. It also helps them to correlate their special interests with the other departments of the hospital. We have also continued to give a two weeks period of training to the affiliated nurses. Their time is short but we endeavor to give them some insight into our aims and methods as well as a little practice in the crafts.

For most of the year we have carried on work on Saturday mornings with the children in the Out-Patient Department. This contact has been interesting and has seemed worthwhile. We should be glad to develop this work as well as the ward work still further if we were not so limited in personnel.

The recreational program has been arranged this year with dances in the Assembly Hall and informal parties in the Sun Room of the Department. We have made use of moving pictures for entertainment with good success. We should be glad to arrange for these parties more frequently and we hope that sometime the hospital may reduce their expense by the purchase of a moving picture machine.

We have continued our interest in the furnishings of the wards and the Sun Room is at present being rendered more attractive. We have again made use of the project of printing a calendar as we find that this forms an unusually good group problem.

An exhibit of the work of the department was sent to the Annual Convention of the Massachusetts Occupational Therapy Association.

The statistics of the department are as follows:—

Articles made, 1,280; forms printed, etc., 22,700.

Average daily attendance—women, 20; men, 16.

Total yearly attendance—women, 553; men, 585.

Respectfully submitted,

ETHELWYN F. HUMPHREY,

Chief Occupational Therapist.

# PUBLICATIONS FROM THE CLINICAL SERVICE AND LABORATORIES

Berk, Arthur and Tivnan, Paul—"Apparatus for Pneumorachiocentesis."

*Archives of Neurology and Psychiatry*, September 1929, Volume 22, pp. 582-584.

Bowman, K. M.—"Religious Problems in Clinical Cases." *Religious Education*, September 1929.

Bowman, K. M.—"Parathyroid Therapy in Schizophrenia." *Journal of Nervous and Mental Diseases*, October 1929.

Bowman, K. M. and Raymond, A. F.—"Physical Findings in Schizophrenia." *American Journal of Psychiatry*, March 1929.

Bowman, K. M. and Kasanin, J.—"The Sugar Content of the Blood in Emotional States." *Archives of Neurology and Psychiatry*, February 1929, Volume 21, pp. 342-362.

Bowman, K. M.—"Chapter on Fatigue, Worry and the Blues—Keeping Mentally Fit," *Greenberg*, 1929.

Campbell, C. M.—"Personal Factors in Relation to the Health of the Individual Worker." *Mental Hygiene*, Volume XIII, No. 3, July 1929, pp. 483-495.

Campbell, C. M.—"Hysteria as a Practical Problem." *Bulletin of the New York Academy of Medicine*, second series, 1929, Volume V, pp. 1057-1072.

Campbell, C. M.—"The Schizophrenic Maladjustment." *Ninth International Congress of Psychology*, Yale University, New Haven, September 1929.

Hinton, William A. and Berk, Arthur—"A Glycerol Modification of the Kahn Test." *N. E. Journal of Medicine*, Volume 201, No. 14, pp. 667-670, October 2, 1929.

Kasanin, Jacob and Kaufman, M. Ralph—"A Study of the Functional Psychoses in Childhood." *American Journal of Psychiatry*, Volume IX, No. 2, September 1929, pp. 307-384.

Kaufman, M. Ralph—"Psyehosis in Paget's Disease." *Archives of Neurology and Psychiatry*, Volume 21, April 1929, pp. 828-837.

Solomon, H. C. and Berk, A.—"Prolonged Treatment in Neurosyphilis." *American Journal of Syphilis*, November 1928.

Wells, F. L.—"Reaction Time and Allied Measures Under Hypnosis: Report of a Case." *Journal of Abnormal and Social Psychology*, Volume 23, No. 3, October-December 1928.

Wells, F. L.—"Reaction—Times to Affects Accompanying Small Stimuli." *American Journal of Psychology*, Volume 41, No. 1, January 1929.

Wells, F. L.—"Musical Symbolism." *The Journal of Abnormal and Social Psychology*, Volume 24, No. 1, April-June 1929.

## VALUATION

November 30, 1929

## REAL ESTATE

Land, 2 acres . . . . .	\$45,060 00
Buildings . . . . .	568,852 23
	<hr/>
	\$613,912 23

## PERSONAL PROPERTY

Travel, transportation and office expenses . . . . .	\$3,774 49
Food . . . . .	3,087 65
Clothing and materials . . . . .	1,253 61
Furnishings and household supplies . . . . .	21,526 50
Medical and general care . . . . .	18,763 69
Heat, light and power . . . . .	612 25
Farm . . . . .	—
Garage, stables and grounds . . . . .	126 15
Repairs . . . . .	1,227 92
	<hr/>
	\$50,372 26

## SUMMARY

Real estate . . . . .	\$613,912 23
Personal property . . . . .	50,372 26
	<hr/>
	\$664,284 49

## FINANCIAL REPORT

To the Department of Mental Diseases:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1929.

## CASH ACCOUNT

## Receipts

<i>Income</i>		
BOARD OF PATIENTS . . . . .	\$6,746 32	
Reimbursements . . . . .	1,472 29	
	<hr/>	\$8,218 61
PERSONAL SERVICES:		
Reimbursement from Board of Retirement . . . . .		92 64
SALES:		
Food . . . . .	\$142 29	
Medical and general care . . . . .	80 40	
Repairs, Ordinary . . . . .	56 29	
Arts and crafts sales . . . . .	53 29	
Total sales . . . . .	<hr/>	\$332 27
MISCELLANEOUS:		
Interest on bank balances . . . . .	\$254 85	
Rent . . . . .	1,800 00	
Sundries . . . . .	152 00	
	<hr/>	2,206 85
Total income . . . . .		<hr/>
		\$10,850 37

## MAINTENANCE

Balance from previous year, brought forward . . . . .	\$3,128 15
Appropriations, current year . . . . .	254,700 00
	<hr/>
Total . . . . .	\$257,828 15
Expenses (as analysed below) . . . . .	242,165 84
	<hr/>
Balance reverting to Treasury of Commonwealth . . . . .	\$15,662 31

## Analysis of Expenses

PERSONAL SERVICES . . . . .	\$155,589 15
RELIGIOUS INSTRUCTIONS . . . . .	1,040 00
TRAVEL, TRANSPORTATION AND OTHER EXPENSES . . . . .	5,603 99
FOOD . . . . .	35,698 04
CLOTHING AND MATERIALS . . . . .	871 22
FURNISHINGS AND HOUSEHOLD SUPPLIES . . . . .	4,927 98
MEDICAL AND GENERAL CARE . . . . .	18,311 99
HEAT, LIGHT AND POWER . . . . .	10,753 11
GARAGE, STABLE AND GROUNDS . . . . .	383 79
REPAIRS ORDINARY . . . . .	3,526 28
REPAIRS AND RENEWALS . . . . .	5,460 29
	<hr/>
Total expenses for Maintenance . . . . .	\$242,165 84

## SPECIAL APPROPRIATIONS

Balance December 1, 1929 . . . . .	\$5,601 79
Expended during the year (see statement below) . . . . .	\$5,432 54
Reverting to Treasury of Commonwealth . . . . .	5,432 54
	<hr/>
Balance November 30, 1929, carried to next year . . . . .	\$169 25



OBJECT	Act or Resolve	Whole Amount	Expended during Fiscal Year	Total Expended to Date	Balance at End of Year
X-ray equipment . . .	Ch. 127, Sec. 5, Acts 1928	\$5,800.00	\$5,432.54	\$5,630.75	\$169.25

# PER CAPITA

During the year the average number of inmates has been 79.27  
Total cost for maintenance, \$242,165.84  
Equal to a weekly per capita cost of \$58.75 (52 weeks to year)  
Receipt from sales, \$332.27  
Equal to a weekly per capita of \$.0806  
All other institution receipts, \$10,518.10  
Equal to a weekly per capita of \$2.5516  
Net weekly per capita \$56.12

Respectfully submitted,

ELIZABETH LIBBER,

*Treasurer.*

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION

PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES.

TABLE 1. *General Information*

Data correct at end of hospital year, November 30, 1929

1. Date of opening as a hospital for mental diseases, June 24, 1912.								
2. Type of hospital: State.								
3. Hospital plant:								
Value of hospital property:								
Real estate, including buildings . . . . .							\$613,912	23
Personal property . . . . .							50,372	26
Total . . . . .							\$664,284	49
Total acreage of hospital property owned, 2.04 acres								
4. Officers and Employees (November 30, 1929)								
	Actually in Service at End of Year			Vacancies at End of Year				
	M.	F.	T.	M.	F.	T.		
Superintendents . . . . .	2	—	2	—	—	—		
Assistant physicians . . . . .	14	1	15	—	1	1		
Medical internes . . . . .	1	1	2	—	—	—		
Total physicians . . . . .	17	2	19	—	1	1		
Resident dentist . . . . .	1	—	1	—	—	—		
Pharmacists . . . . .	1	—	1	—	—	—		
Graduate nurses . . . . .	2	12	14	—	2	2		
Other nurses and attendants . . . . .	18	16	34	—	—	—		
Occupational therapists . . . . .	—	2	2	—	—	—		
Social workers . . . . .	—	6	6	—	—	—		
All other officers and employees . . . . .	22	47	69	—	—	—		
Total officers and employees . . . . .	61	85	146	—	3	3		

NOTE:— The following items, 5-10, inclusive, are for the year ended September 30, 1929.

5. Census of Patient Population at end of year:								
	Actually in Hospital			Absent from Hospital but Still on Books				
	M.	F.	T.	M.	F.	T.		
White:								
Insane . . . . .	34	30	64	15	22	37		
Mental defectives . . . . .	1	1	2	—	—	—		
All other cases . . . . .	6	1	7	—	—	—		
Total . . . . .	41	32	73	15	22	37		
Other Races:								
Insane . . . . .	3	1	4	1	—	1		
Total . . . . .	3	1	4	1	—	1		
Grand Total . . . . .	44	33	77	16	22	38		



	Males	Females	Total
6. Patients under treatment in occupational-therapy classes, including physical training, on date of report.	19	21	40
7. Other patients employed in general work of hospital on date of report	1	—	1
8. Average daily number of all patients actually in hospital during year	41.60	38.87	80.47
9. Voluntary patients admitted during year	35	21	56
10. Persons given advice or treatment in out-patient clinics during year	1,214	921	2,135

NOTE: — The following tables, 3–18, inclusive, are for the Statistical year ended September 30, 1929.

TABLE 2. *Financial Statement.*

See treasurer's report for data requested under this table

TABLE 3. Movement of Population.

	INSANE			SANE, VOLUNTARY			TEMPORARY CARE AND OBSERVATION			TOTAL ON BOOKS		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of Institution September 30, 1928	49	46	95	2	5	7	23	10	33	74	61	135
Admissions during year:												
First Admissions.	63	59	122	23	16	39	710	648	1,358	796	723	1,519
Readmissions	10	7	17	12	5	17	182	134	316	204	146	350
Transfers from other hospitals for mental diseases	1	-	1	-	-	-	-	-	-	1	-	1
Total received during year	74	66	140	35	21	56	892	782	1,674	1,001	869	1,870
Total on books during year	123	112	235	37	26	63	915	792	1,707	1,075	930	2,005
Discharged from books during year:												
As recovered	2	6	8	4	1	5	50	14	64	56	21	77
As improved	26	18	44	6	12	18	217	198	415	249	228	477
As unimproved	1	3	4	10	1	11	425	392	817	436	396	832
As without psychosis	-	-	-	13	11	24	186	164	350	199	175	374
Transferred to other hospitals for mental diseases	43	39	82	-	-	-	-	-	-	43	39	82
Died during year	14	9	23	-	-	-	18	7	25	32	16	48
Total discharged, transferred and died during year.	86	75	161	33	25	58	896	775	1,671	1,015	875	1,890
Insane patients remaining on books of hospital at end of hospital year												
In hospital	21	15	36	4	1	5	19	17	36	44	33	77
On parole or otherwise absent	16	22	38	-	-	-	-	-	-	16	22	38
Total on books September 30, 1929	37	37	74	4	1	5	19	17	36	60	55	115

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions.*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States. . . . .	38	37	75	16	18	12	18	19	14
Africa . . . . .	—	1	1	—	—	—	—	—	—
Canada <sup>1</sup> . . . . .	5	6	11	7	10	5	9	9	7
Denmark . . . . .	1	—	1	1	1	1	—	—	—
England . . . . .	2	—	2	4	2	2	4	3	3
France . . . . .	—	—	—	—	—	—	1	—	—
Germany . . . . .	—	—	—	1	1	1	—	—	—
Greece . . . . .	1	—	1	1	1	1	—	—	—
Ireland . . . . .	4	5	9	12	14	12	12	15	10
Italy . . . . .	3	—	3	4	4	4	—	—	—
Poland . . . . .	2	—	2	2	3	2	—	—	—
Portugal . . . . .	—	—	—	2	—	—	—	—	—
Russia . . . . .	3	3	6	5	4	4	6	5	5
Scotland . . . . .	2	4	6	3	1	1	4	4	4
South America . . . . .	—	1	1	—	—	—	1	1	1
Sweden . . . . .	2	2	4	3	2	2	2	2	2
Wales . . . . .	—	—	—	1	—	—	—	—	—
Unascertained . . . . .	—	—	—	1	2	1	2	1	1
Total . . . . .	63	59	122	63	63	48	59	59	47

<sup>1</sup> Includes Newfoundland.

TABLE 4-A. Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born.

Age Groups	Aggregate	NATIVE BORN					FOREIGN BORN				
		Total	PERCENTAGE				Total	TIME IN UNITED STATES BEFORE ADMISSION			
			Native	Foreign	Mixed	Unascor- tained		Under 5 years	5-9 years	10-14 years	15 years and over
Under 15 years	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
15-19 years	6 4 10	4 3 7	1 1 2	3 2 5	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
20-24 years	4 10 11	3 8 11	1 3 4	1 2 3	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
25-29 years	7 13 20	6 12 18	1 4 5	1 2 3	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
30-34 years	4 9 13	3 3 6	1 1 2	2 2 2	2 2 2	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
35-39 years	12 4 16	9 2 11	1 1 2	1 6 6	2 2 4	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
40-44 years	6 6 12	3 3 6	1 1 3	1 2 3	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
45-49 years	6 8 14	3 4 7	3 3 6	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
50-54 years	11 2 13	5 2 7	2 2 2	1 1 1	3 1 4	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
55-59 years	5 1 6	2 2 4	1 1 2	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
60-64 years	5 1 6	2 2 4	1 1 2	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
65-69 years	1 1 2	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
70 years and over	1 1 2	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
Unascertained											
Total	63 59 122	38 37 75	12 13 25	11 11 22	14 12 26	1 1 2	25 22 47	2 4 6	1 2 3	2 2 4	20 16 36



TABLE 5. *Citizenship of First Admissions.*

	Males	Females	Total
Citizens by birth . . . . .	38	37	75
Citizens by naturalization . . . . .	12	12	24
Aliens . . . . .	11	10	21
Citizenship unascertained . . . . .	2	—	2
Total . . . . .	63	59	122

TABLE 6. *Psychoses of First Admissions.*

	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses . . . . .	—	1	1	—	1	1
2. Senile psychoses . . . . .	—	1	1	—	1	1
3. Psychoses with cerebral arteriosclerosis . . . . .	1	1	2	—	—	—
4. General paralysis . . . . .	31	—	31	—	—	—
5. Psychoses with cerebral syphilis . . . . .	1	—	1	—	—	—
6. Psychoses with Huntington's chorea . . . . .	—	—	—	—	—	—
7. Psychoses with brain tumor . . . . .	1	—	1	—	—	—
8. Psychoses with other brain or nervous diseases, total . . . . .	2	2	4	—	—	—
Other diseases . . . . .	—	—	—	—	—	—
9. Alcoholic psychoses, total . . . . .	—	—	—	—	—	—
10. Psychoses due to drugs and other exogenous toxins, total . . . . .	1	—	1	—	—	—
Other exogenous toxins . . . . .	—	—	—	—	—	—
11. Psychoses with pellagra . . . . .	—	—	—	2	—	2
12. Psychoses with other somatic diseases, total . . . . .	5	15	20	—	—	—
Delirium with infectious diseases . . . . .	1	2	3	—	—	—
Delirium of unknown origin . . . . .	1	6	7	—	—	—
Cardio-renal diseases . . . . .	2	1	3	—	—	—
Other diseases or conditions . . . . .	1	6	7	—	—	—
13. Manic-depressive psychoses, total . . . . .	—	10	10	2	18	20
Manic type . . . . .	—	—	—	—	—	—
Depressive type . . . . .	2	6	8	—	—	—
Other types . . . . .	—	2	2	—	—	—
14. Involution melancholia . . . . .	—	—	—	1	5	6
15. Dementia praecox (schizophrenia) . . . . .	—	—	—	8	10	18
16. Paranoia and paranoid conditions . . . . .	—	—	—	1	3	4
17. Epileptic psychoses . . . . .	—	—	—	1	—	1
18. Psychoneuroses and neuroses, total . . . . .	—	—	—	—	—	—
19. Psychoses with psychopathic personality . . . . .	—	—	—	—	—	—
20. Psychoses with mental deficiency . . . . .	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	—	—	—	6	3	9
22. Without psychosis, total . . . . .	—	—	—	—	—	—
Total . . . . .	63	59	122	—	—	—

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			Traumatic			Senile			With cerebral arterio-sclerosis			General paralysis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	2	2	4	-	-	-	-	-	-	-	-	-	1	-	1
English	5	8	13	-	-	-	-	1	1	-	-	-	2	-	2
French	1	1	2	-	-	-	-	-	-	-	-	-	1	-	1
German	1	1	2	-	-	-	-	-	-	-	-	-	1	-	1
Greek	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
Hebrew	4	5	9	-	-	-	-	-	-	-	-	-	2	-	2
Irish	17	17	34	-	1	1	-	-	-	-	-	-	6	-	6
Italian <sup>1</sup>	4	-	4	-	-	-	-	-	-	-	-	-	3	-	3
Portuguese	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	4	2	6	-	-	-	-	-	-	-	-	-	1	-	1
Scotch	6	5	11	-	-	-	-	-	-	1	-	1	3	-	3
Slavonic <sup>3</sup>	3	-	3	-	-	-	-	-	-	-	-	-	1	-	1
Spanish	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Mixed	13	16	29	-	-	-	-	-	-	1	1	-	8	-	8
Unascertained	1	1	2	-	-	-	-	-	-	-	-	-	1	-	1
Total	63	59	122	-	1	1	-	1	1	1	1	2	31	-	31

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses* — Continued.

RACE	With cerebral syphilis			With brain tumor			With other brain or nervous diseases			Due to drugs and other exogenous toxins			With pellagra			With other somatic diseases		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	-	-	-	-	-	-	-	1	1	-	-	-	1	-	1	-	-	-
English	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3
French	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
German	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Greek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Irish	-	-	-	-	-	-	1	-	1	1	-	1	1	-	1	3	4	7
Italian <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Scandinavian <sup>2</sup>	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	1	1
Scotch	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	1	1	2
Slavonic <sup>3</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Spanish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Mixed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Unascertained	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	-	1	1	-	1	2	2	4	1	-	1	2	-	2	5	15	20

<sup>1</sup>Includes "North" and "South".

<sup>2</sup>Norwegians, Danes and Swedes.

<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses.*—Continued.

RACE	Manic-depressive			Involution melancholia			Dementia praecox			Paranoia and paranoid conditions			Epileptic psychoses			Undiagnosed psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
English	—	1	1	—	—	—	3	1	4	—	1	1	—	—	—	—	1	1
French	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	2	2	1	1	2	1	—	1	—	—	—	—	—	—	—	—	—
Irish	—	7	7	—	2	2	1	2	3	1	1	2	1	—	1	2	—	2
Italian <sup>1</sup>	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	1	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Scotch	—	2	2	—	1	1	—	—	—	—	—	—	—	—	—	1	—	1
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Spanish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	2	3	5	—	1	1	1	6	7	—	1	1	—	—	—	2	2	4
Unascertained	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2	18	20	1	5	6	8	10	18	1	3	4	1	—	1	6	3	9

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis	31	—	31	—	—	—	1	—	1	—	—	—	2	—	2
5. With cerebral syphilis	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
8. With other brain or nervous diseases	2	2	4	—	—	—	—	—	—	—	1	1	1	—	1
9. Alcoholic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	5	15	20	—	—	—	—	—	—	1	1	—	—	4	4
13. Manic-depressive	2	18	20	—	—	—	—	1	1	—	4	4	1	6	7
14. Involution melancholia	1	5	6	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox	8	10	18	—	—	—	3	2	5	—	3	3	3	3	6
16. Paranoia and paranoid conditions	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
18. Psychoneuroses and neuroses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses	6	3	9	—	—	—	1	1	2	3	1	4	—	—	—
22. Without psychosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	63	59	122	—	—	—	6	4	10	4	10	14	7	13	20

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued.*

PSYCHOSES	30-34 years			35-39 years			40-44 years			45-49 years			50-54 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
4. General paralysis . . . . .	2	-	2	8	-	8	4	-	4	5	-	5	6	-	6
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	1	-	1
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	1	-	1	1	-	1	-	-	-	-	-	-
12. With other somatic diseases . . . . .	1	4	5	-	-	-	1	1	2	-	4	4	-	-	-
13. Manic-depressive . . . . .	-	4	4	-	2	2	-	1	1	-	-	-	1	-	1
14. Involution melancholia . . . . .	-	-	-	-	-	-	1	1	-	3	3	-	1	1	2
15. Dementia praecox . . . . .	-	-	-	2	-	2	-	2	2	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	1	1	-	1	1	1	1	2	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	1	1	-	-	-	-	-	-	2	-	2
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	4	9	13	12	4	16	6	6	12	6	8	14	11	2	13

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded.*

PSYCHOSES	55-59 years			60-65 years			65-69 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	1	1
2. Senile . . . . .	-	-	-	-	-	-	-	1	1	-	-	-
3. With cerebral arteriosclerosis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	3	-	3	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	1	1	2	-	-	-	1	-	1	1	-	1
13. Manic-depressive . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	5	1	6	-	-	-	1	1	2	1	1	2





TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Urban			Rural			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	1	1	-	1	1	-	-	-	-	-	-
2. Senile . . . . .	-	1	1	-	1	1	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	1	1	2	1	1	2	-	-	-	-	-	-
4. General paralysis . . . . .	31	-	31	31	-	31	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	1	-	1	1	-	1	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	-	1	-	-	-	-	-	-	1	-	1
8. With other brain or nervous diseases . . . . .	2	2	4	2	2	4	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	1	-	1	1	-	1	-	-	-	-	-	-
11. With pellagra . . . . .	2	-	2	-	-	2	-	-	-	-	-	-
12. With other somatic diseases . . . . .	5	15	20	5	14	19	-	1	1	-	-	-
13. Manic-depressive . . . . .	2	18	20	2	18	20	-	-	-	-	-	-
14. Involution melancholia . . . . .	1	5	6	1	5	6	-	-	-	-	-	-
15. Dementia praecox . . . . .	8	10	18	8	10	18	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	1	3	4	1	3	4	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	1	-	1	1	-	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	6	3	9	6	3	9	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	63	59	122	62	58	120	-	1	1	1	-	1

TABLE 11. *Economic Conditions of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Dependent			Marginal			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	1	1	-	-	-	-	1	1	-	-	-
2. Senile . . . . .	-	1	1	-	1	1	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	1	1	2	-	-	-	1	1	2	-	-	-
4. General paralysis . . . . .	31	-	31	1	-	1	30	-	30	-	-	-
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	-	-	1	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	-	1	-	-	-	-	-	-	1	-	1
8. With other brain or nervous diseases . . . . .	2	2	4	-	-	-	2	2	4	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	1	-	1	-	-	-	1	-	1	-	-	-
11. With pellagra . . . . .	2	-	2	-	-	-	2	-	2	-	-	-
12. With other somatic diseases . . . . .	5	15	20	-	1	1	5	14	19	-	-	-
13. Manic-depressive . . . . .	2	18	20	-	1	1	2	17	19	-	-	-
14. Involution melancholia . . . . .	1	5	6	-	-	-	1	5	6	-	-	-
15. Dementia praecox . . . . .	8	10	18	-	1	1	8	9	17	-	-	-
16. Paranoid and paranoid conditions . . . . .	1	3	4	-	-	-	1	3	4	-	-	-
17. Epileptic psychoses . . . . .	1	-	1	1	-	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	6	3	9	1	-	1	5	3	8	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	63	59	122	3	4	7	59	55	114	1	-	1

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
3. With cerebral arterio-sclerosis . . . . .	1	1	2	-	1	1	-	-	-	1	-	1	-	-	-
4. General paralysis . . . . .	31	-	31	9	-	9	13	-	13	8	-	8	1	-	1
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	2	2	4	-	2	2	2	-	2	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-
11. With pellagra . . . . .	2	-	2	-	-	-	-	-	-	2	-	2	-	-	-
12. With other somatic diseases . . . . .	5	15	20	1	12	13	2	1	3	1	2	3	1	-	1
13. Manic-depressive . . . . .	2	18	20	2	16	18	-	1	1	-	-	-	-	1	1
14. Involution melancholia . . . . .	1	5	6	-	5	5	1	-	1	-	-	-	-	-	-
15. Dementia praecox . . . . .	8	10	18	5	7	12	2	3	5	1	-	1	-	-	-
16. Paranoia and paranoid conditions . . . . .	1	3	4	-	3	3	-	-	-	1	-	1	-	-	-
17. Epileptic psychoses . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	6	3	9	2	3	5	2	-	2	2	-	2	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	63	59	122	21	51	72	23	5	28	17	2	19	2	1	3

TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Single			Married			Widowed			Separated			Divorced		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	1	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
2. Senile . . . . .	-	1	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
3. With cerebral arterio-sclerosis . . . . .	1	1	2	-	1	1	1	-	1	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	31	-	31	13	-	13	17	-	17	-	-	-	1	-	1	-	-	-
5. With cerebral syphilis . . . . .	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	2	2	4	-	-	-	2	2	4	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	2	-	2	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	5	15	20	2	1	3	1	13	14	-	-	-	1	1	2	1	-	1
13. Manic-depressive . . . . .	2	18	20	1	13	14	-	4	4	1	-	1	-	1	1	-	-	-
14. Involution melancholia . . . . .	1	5	6	-	-	-	1	5	6	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	8	10	18	6	9	15	2	1	3	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	1	3	4	1	2	3	-	-	-	-	-	-	-	-	-	-	1	1
17. Epileptic psychoses . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	6	3	9	6	2	8	-	1	1	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	63	59	122	32	28	60	27	26	53	1	2	3	2	2	4	1	1	2

TABLE 14. Psychoses of Readmissions

PSYCHOSES	Males	Females	Total
General paralysis	3	-	3
Psychoses with other brain or nervous diseases	1	-	1
Psychoses due to drugs and other exogenous toxins	1	-	1
Manic-depressive psychoses	3	5	8
Dementia praecox	1	1	2
Undiagnosed psychoses	1	1	2
Total	10	7	17

TABLE 15. Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With cerebral arteriosclerosis	2	-	2	-	-	-	2	-	2	-	-	-
General paralysis	10	-	10	-	-	-	10	-	10	-	-	-
With cerebral syphilis	-	1	1	-	-	-	-	1	1	-	-	-
With other brain or nervous diseases	3	-	3	-	-	-	3	-	3	-	-	-
Alcoholic	1	-	1	-	-	-	1	-	1	-	-	-
Due to drugs and other exogenous toxins	1	-	1	-	-	-	1	-	1	-	-	-
With other somatic diseases	1	4	5	1	2	3	-	1	1	-	1	1
Manic-depressive	1	12	13	-	2	2	1	9	10	-	1	1
Dementia praecox	5	5	10	-	1	1	4	3	7	1	1	2
With psychopathic personality	-	1	1	-	-	-	-	1	1	-	-	-
Undiagnosed psychoses	5	4	9	1	1	2	4	3	7	-	-	-
Total	29	27	56	2	6	8	26	18	44	1	3	4



TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Psychoses*

CAUSES OF DEATH — <i>Diseases</i>	Total			Senile			With cerebral arterio-sclerosis			General paralysis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious</i>												
Tuberculosis of respiratory system . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
Syphilis (non-nervous forms) . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
Purulent infection, septicaemia . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
<i>General — Not Included in Class I</i>												
Cancer and other malignant tumors . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
Alcoholism (acute or chronic) . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
Other general diseases . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
<i>Of the Nervous System</i>												
General paralysis of the insane . . . . .	3	—	3	—	—	—	—	—	—	3	—	3
Other forms of mental disease . . . . .	1	3	4	—	—	—	—	—	—	—	—	—
Epilepsy . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
Other diseases of the nervous system . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
<i>Of the Circulatory System</i>												
Arteriosclerosis . . . . .	1	2	3	—	—	—	1	—	1	—	—	—
<i>Of the Respiratory System</i>												
Of respiratory system (tuberculosis excepted) . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
<i>Non-Venereal — Genito-Urinary System and Annexa</i>												
Nephritis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
<i>Of the Skin and Cellular Tissue</i>												
Diseases of skin and annexa . . . . .	2	—	2	—	—	—	—	—	—	1	—	1
<i>External Causes</i>												
Other external causes . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
Total . . . . .	14	9	23	—	1	1	2	—	2	4	—	4

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Psychoses — Concluded.*

CAUSES OF DEATH — <i>Diseases</i>	Alcoholic			Involution melancholia			Epileptic psychoses			All other psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious</i>												
Tuberculosis of respiratory system . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis (non-nervous forms) . . . . .	—	—	—	—	—	—	—	—	—	1	—	1
Purulent infectious, septicaemia . . . . .	—	—	—	—	—	—	—	—	—	1	—	1
<i>General — Not Included in Class I</i>												
Cancer and other malignant tumors . . . . .	—	—	—	—	—	—	—	—	—	—	1	1
Alcoholism (acute or chronic) . . . . .	—	—	—	—	—	—	—	—	—	1	—	1
Other general diseases . . . . .	—	—	—	—	—	—	—	—	—	—	1	1
<i>Of the Nervous System</i>												
General paralysis of the insane . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Other forms of mental disease . . . . .	—	—	—	—	1	1	—	—	—	1	2	3
Epilepsy . . . . .	—	—	—	—	—	—	1	—	1	—	—	—
Other diseases of the nervous system . . . . .	—	—	—	—	—	—	—	—	—	1	—	1
<i>Of the Circulatory System</i>												
Arteriosclerosis . . . . .	—	—	—	—	—	—	—	—	—	—	2	2
<i>Of the Respiratory System</i>												
Of the respiratory system (tuberculosis excepted) . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
<i>Non-Venereal — Genito-Urinary System and Annexa</i>												
Nephritis . . . . .	—	—	—	—	—	—	—	—	—	—	1	1
<i>Of the Skin and Cellular Tissue</i>												
Diseases of the skin and annexa . . . . .	—	—	—	—	—	—	—	—	—	1	—	1
<i>External Causes</i>												
Other external causes . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	1	—	1	—	1	1	1	—	1	6	7	13

<sup>1</sup>Includes group 22, "without psychosis."

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

PSYCHOSES	Total			15-19 years		20-24 years		25-29 years		30-34 years		35-39 years	
				M.		F.		M.		F.		M.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.
Traumatic	-	1	1	-	-	-	-	-	-	-	-	-	-
Senile	-	1	1	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	2	-	2	-	-	-	-	-	-	-	-	-	-
General paralysis	4	-	4	-	-	-	-	-	-	-	-	-	-
With cerebral syphilis	1	-	1	-	-	-	-	-	-	1	-	-	-
With brain tumor	1	-	1	1	-	1	-	-	-	-	-	-	-
Alcoholic	1	-	1	-	-	-	-	-	-	-	-	-	-
With pellagra	1	-	1	-	-	-	-	-	-	-	-	-	-
With other somatic diseases	2	5	7	-	-	-	-	1	1	1	1	1	1
Involution melancholia	-	1	1	-	-	-	-	-	-	-	-	-	-
Epileptic psychoses	1	-	1	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	1	1	2	-	-	-	-	-	-	-	-	-	-
Total	14	9	23	1	-	1	1	1	1	1	1	1	1

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses — Concluded

Psychoses		40-44 years		45-49 years		50-54 years		55-59 years		60-64 years		65-69 years		70 years and over		
		M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Traumatic	.	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Senile	.	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-
With cerebral arteriosclerosis	.	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
General paralysis	.	1	-	1	-	-	-	2	-	2	-	-	-	-	-	-
With cerebral syphilis	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With brain tumor	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alcoholic	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With pellagra	.	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
With other somatic diseases	.	1	-	1	-	2	2	-	-	-	-	-	-	-	-	-
Involution melancholia	.	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-
Epileptic psychoses	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	.	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Total	.	3	-	3	-	2	2	2	1	3	-	-	1	2	3	1

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses*

PSYCHOSES	Total			Less than 1 month			1-3 months			4-7 months		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Traumatic	-	1	1	-	-	-	-	1	1	-	-	-
Senile	-	1	1	-	1	1	-	-	-	-	-	-
With cerebral arteriosclerosis	2	-	2	-	-	-	1	-	1	1	-	1
General paralysis	4	-	4	3	-	3	-	-	-	1	-	1
With cerebral syphilis	1	-	1	-	-	-	1	-	1	-	-	-
With brain tumor	1	-	1	-	-	-	1	-	1	-	-	-
Alcoholic	1	-	1	1	-	1	-	-	-	-	-	-
With pellagra	1	-	1	1	-	1	-	-	-	-	-	-
With other somatic diseases	2	5	7	2	4	6	-	-	-	-	1	1
Involution melancholia	-	1	1	-	1	1	-	-	-	-	-	-
Epileptic psychoses	1	-	1	-	-	-	1	-	1	-	-	-
Undiagnosed psychoses	1	1	2	1	1	2	-	-	-	-	-	-
Total	14	9	23	8	7	15	4	1	5	2	1	3









## The Commonwealth of Massachusetts



## ANNUAL REPORT

OF THE

## TRUSTEES

OF THE

BOSTON PSYCHOPATHIC  
HOSPITAL (Incorporated)

FOR THE

YEAR ENDING NOVEMBER 30, 1930

DEPARTMENT OF MENTAL DISEASES



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# REPORT OF THE TRUSTEES OF THE BOSTON PSYCHOPATHIC HOSPITAL

*To His Excellency the Governor and the Honorable Council:*

The Trustees would call attention to this report of 1930 as representative of the work of another busy year at the Boston Psychopathic Hospital. The clinical study of 1,900 patients by the methods that take into account the many possible and often very complicated factors that enter into the production of mental symptoms and personality disorders involves an immense task. From observations and routine visits there, and from the reports received at the regular monthly meetings, the Trustees believe that the work continues to be of very high calibre. Considering the complicated nature of the problems presented, the great numbers of patients that are seen, the changes in the professional staff that occur from time to time, and the limitation of funds, it is obvious to us that the level of the work has been splendidly maintained. We have every reason to confirm the high regard in which the hospital is held nationally and even internationally.

That the work with so many difficult patients continues year after year with such a minimum of difficulty arising is due particularly to the skilful management of the medical director, the chief executive officer, and the chief of medical service, as they are all encouraged by the attitude of the Commissioner of the Department of Mental Diseases. In turn, they appear to imbue the whole personnel with a spirit of co-operative service. Once more we assert that the Commonwealth of Massachusetts is deeply indebted to these officers for the fine spirit which they display.

We would add our fervent hope to that expressed by our medical director for extension of research into the great and baffling scientific and human problem of mental disease. We are grateful for the special funds which have been attracted through the professional standing and capacity of the staff, funds which have led to the special studies that have been carried on, but it is evident that greater resources are necessary if the hospital is to develop, as it should, into one of the most notable centers for the scientific investigation of mental ailments — one of the greatest scorges of mankind.

There are several outstanding activities of the hospital which could be pointed out as distinctive continuing achievements. These should appear obvious to the reader of this report, but we would this year like to make special mention of the success of the co-operative training of nurses, which, in turn, means better service to the community through more nurses being acquainted with the needs of the mentally ill. This is merely one of the fields in which the hospital is functioning co-operatively. The fact is that mental ailments have many complications involving the family, economic, educational, and social life of the individual as well as his physical and psychological conditions. Interdependence and inter-relationship of all these have to be considered both in studying the causation of the disorder as well as in making plans for treatment. Besides the work done in the hospital itself, co-operation with families, courts, social agencies, employers, and schools is necessary. The medical director's reports, and especially his short sketches of cases show how well this is kept in mind.

Respectfully submitted,

WILLIAM HEALY, *Chairman.*  
ESTHER M. ANDREWS, *Secretary.*  
CARRIE INNES FELCH,  
CHARLES F. ROWLEY.

ALLAN WINTER ROWE  
WILLIAM J. SULLIVAN,  
CHANNING FROTHINGHAM,

## MEDICAL DIRECTOR'S REPORT

DECEMBER 11, 1930.

*To the Board of Trustees of the Boston Psychopathic Hospital:*

In accordance with the provision of the statutes I submit for your consideration the report for the statistical year ending September 30, 1930, and for the fiscal year ending November 30, 1930.

## ON THE GENERAL WORK OF THE HOSPITAL

In previous annual reports some attention has been paid to the general organization of the work in the hospital; an outline has been given of the various functions of the hospital, of its various departments and of the coordination of the various activities in the hospital. The three main functions of the hospital are (1) the care and treatment of the patients confided to it; (2) investigation into the causes of mental disorders and into the best way of dealing with them; (3) the teaching of various groups of special students.

The combination of these three functions has many advantages but at times the demands made upon one function may somewhat interfere with the fulfillment of another. The demand made upon the medical staff by the very large number of patients admitted is so absorbing that there is less time for investigative work than one could desire. In addition, the very limited budget which is available for investigative work makes it impossible to take advantage of the unusual opportunities for research and to follow up promising lines of inquiry. For the hospital to fulfill its function of research in any adequate way, structural additions and a larger budget for research are necessary.

Even under the present limitation of facilities at the hospital, investigative work has been steadily carried on during the past year, and references will be made to this work later in the report.

The number of patients admitted to the hospital during the past year, the types of disorder dealt with, the variety of clinical problems presented, the special questions of treatment which have arisen have not differed essentially from the material of the preceding year. It is not generally realized even by the medical profession how much time is taken up in the examination, the diagnosis, the treatment of even the simplest case of mental disorder. In certain medical specialties attention may be, without danger, focussed upon a special organ or system, and treatment directed almost immediately to that system. In the field of mental disorders the problem is more complex. The symptoms for which the patient is brought to the hospital can only rarely be looked upon as due to the disorder of a single system, and in general have to be considered from a wider point of view as a problem in human adjustment. The psychiatrist has to make a thorough review of his patient, not only of the basal functions such as circulation, digestion, excretion, but also of the instinctive and the emotional life and of the general problem of the adaptation of the patient with his special personality to the actual life situation which he has to meet.

In view of the large admission rate and of the unusually heavy demands made upon the time of each house physician for the examination of a single patient, only a limited number of the patients admitted can be studied intensively over any considerable period. Yet it is chiefly from such intensive study of cases that progress in our knowledge of the intimate mechanisms of mental disorders is to be expected. It is one of the practical problems of the hospital to choose judiciously from the large number of patients admitted those cases where intensive study and treatment are likely to be most productive.

It has been the custom in previous annual reports to give brief sketches of individual cases in order to illustrate the actual problems dealt with at the hospital, and to give some human content to the abstract diagnostic terms of the statistical tables. These alien diagnostic terms do little justice to the homely nature of the problems of the patient, and do not reveal how near these problems of the patients are to the stresses and conflicts which enter into the private life of everyone.

In many cases the problem is a strictly medical one in the narrow technical sense of the word medical; in other cases the physician has to deal with a problem of human adaptation, where studies in nutrition and infection play a meagre role, while the analysis of the personality and of the life situation is in the centre of his task. The cases of more strictly medical nature are not necessarily those whose symptoms are predominantly physical nor are mental symptoms the only way in which the difficulty of adaptation to the stresses of life may be expressed. Eccentric conduct or a disconcerting attitude may be the first indication of some underlying bodily ailment, and on the other hand paralysis or pain may have its origin in the



difficulty which the patient has in meeting a distressing social situation. A few examples to illustrate these general principles follow.

(A) *Cases of organic disease of the central nervous system manifesting itself either physical or mental symptoms or in both.*

A.B., a woman of 57 for 3 years had shown rather childish behaviour. More recently she had become dizzy and complained of other disturbing feelings; finally she became confused and complained of smelling various odors and hearing noises which others did not hear. Examination disclosed the presence of a brain tumor and she was transferred to another hospital to be under surgical care.

B.C., aged 48, a civil service employee doing important work, had for some time shown a complete change in his personality but no physical symptoms had been noticed by his family. Examination disclosed the presence of general paralysis ("paresis") and he was given special treatment with very marked benefit. He has been enabled to return to his occupation and is maintaining his previous level of efficiency.

C.D., aged 46, had complained that people were after him, he heard voices making accusations against him and stated that he had been chloroformed. On account of sexual misbehaviour he was brought into court and was referred to the hospital. Examination disclosed physical signs which were very suggestive of general paralysis.

D.E., a boy of 15, had been causing much trouble by his wilful and disorderly behaviour and had come to the attention of the police owing to stealing. He was of normal intelligence, showed no outstanding physical symptoms but the examination of his cerebrospinal fluid showed anomalies pointing towards some organic involvement of the central nervous system.

E.F., a boy of 19 was referred by the court as he has assaulted another boy with a knife. A review of his general condition disclosed physical symptoms suggestive of epidemic encephalitis, a disease which may leave not only persistent physical symptoms but serious changes in the personality.

In other cases the underlying cause of the disorder is not a structural change such as brain tumor or abscess but a disturbance of the nutrition of the brain, either owing to some chronic or acute poisoning or to some general bodily ailment with secondary interference with the function of the brain. Of the cases due to chronic or acute intoxication, the most frequent are those due to alcoholism. In some cases the mental disturbance is of transitory nature, but in other cases permanent damage has obviously been done and the patient may suffer from a permanent and serious loss of memory with all that this entails, or from a permanent distortion of the mental life in which hallucinations and delusions play an important role.

(B) *Cases of mental disorder based on some form of poisoning.*

F.G., aged 52, addicted to the use of alcohol, became suspicious of her husband and thought that he was trying to poison her. On admission to the hospital she was nervous and restless, had both visual and auditory hallucinations, and after 8 days in the hospital was transferred for continued treatment elsewhere.

G.H., aged 45, for some months had been showing motor symptoms. He finally became confused and excited, imagined that people were going to harm him. He saw imaginary persons and heard imaginary voices. The condition seemed to be due to the fact that he had been taking bromoseltzer in large quantities. After one month in the hospital he had recovered and was able to leave.

Mental symptoms occur in the greatest variety of physical disorders and either owing to special difficulty in management or to the vague apprehension of those in charge of the patient the latter may be admitted to the Boston Psychopathic Hospital rather than to a general hospital, or transferred from the latter to the former.

(C) *Cases of mental disorder due to physical ailments.*

H.I., aged 29, a previously well balanced and pleasant young woman. Eight days after the birth of a baby became restless and excited and preoccupied with religious matters. On admission to the hospital she was found to be under-nourished and anemic, with a very slight fever, and was in a condition of marked mental confusion. Under the routine medical and nursing care she steadily improved and was able to leave the hospital 3 weeks after admission.



I.J., aged, 23 complained of being exhausted, faint, tired and worried. In this case the physical health of the patient was not satisfactory but it seemed probable that the nature and degree of her incapacity were partly determined by her personality and her way of dealing with problems of life. She was referred to another hospital for tonsillectomy and gynecological treatment and arrangements were made for her to return for psychotherapy to the Out-Patient Department of the Boston Psychopathic Hospital.

In many cases no evidence of any undermining disorder is found and the morbid ideas of the patient seem closely connected with the instinctive and emotional needs of the patient and with the subtle influences of the family and social atmosphere.

(D) *Cases in which the mental symptoms are the response of a vulnerable personality to an unsatisfactory life situation.*

J.K., aged 20, on admission showed a considerable degree of under-nourishment but no specific physical disorder. She had been brought up in a strict orthodox Jewish home. For some time she had lost interest in her clerical occupation and had become more and more preoccupied with phantasies until she saw the whole world distorted by her preoccupations and her wishes. She felt that men had proposed marriage to her and that she was going to have a baby.

K.L., aged 36, a simple Irish woman. Had been preoccupied with religion to a morbid degree and had shown eccentric behaviour. She told of many complicated and phantastic experiences and spent much time in praying. Owing to the absence of relatives it was not possible to get any detailed account of her life nor to trace the relationship between her beliefs and the conditions of her rather lonely and drab existence.

L.M., aged 32, for some months had episodes of being suspicious of his wife after which he would recognize the unjustness of his suspicions. The father of the patient had committed suicide as a result of domestic troubles and his mother had been very jealous. The patient presented in an exaggerated degree an attitude which in a less degree is of frequent occurrence. He was unwilling to stay long enough in the hospital to have a thorough review made of the complicated factors which are usually found at the basis of morbid jealousy.

M.N., aged 19, a Lithuanian boy who had been living for many years with his father with whom he was not on good terms and whom he held responsible for inconsiderate treatment of his dead mother. Although the boy was of normal intelligence, he had been unable to establish himself in any occupation and was apparently devoid of social interests. It was considered that for the re-education of this boy in social adaptation a rather prolonged period of treatment in a state hospital would be required.

Depression is one of the most common features in all mental disorders and in some cases it dominates the whole clinical picture. The depression may be of varied nature and degree; it may occur in personalities of varied types; it may be precipitated by a great variety of factors.

(E) *Cases of depression or elation elicited by a variety of difficulties, of long or short duration.*

N.O., aged 38, had reacted to prolonged unemployment with depression and finally had made an impulsive attempt at suicide. He was transferred to a U.S.V.B. Hospital for continued treatment.

O.P., aged, 43, became depressed after financial losses. He lost hope and attempted suicide. He felt that he was going to be electrocuted. The case seemed to be one where complete recovery could be expected. He was transferred to a U.S.V.B. Hospital.

P.Q., aged 47, became depressed over financial losses and over the illness of his wife, as a result of which he had been living alone and probably been rather poorly nourished. A short period of rest in the hospital with encouraging interviews and psychotherapy led to considerable improvement so that he was able to return home. The improvement, however, was not maintained for long so that after one month he was taken to another hospital for treatment.

Q.R., aged 51, for many years had suffered from the unkindly and overbearing treatment of her husband. The additional factors which led to her depression were the mental disorder of her son and an attack of bladder trouble.

In these cases the episode of depression is caused by some reverse or disappointment but in other cases there is the rather paradoxical reaction where a disappointment elicits an attack characterized by elation and overactivity.

R.S., aged 23, had been rather pampered from childhood owing to a certain physical ailment. At the age of 21, after breaking an engagement, she had been somewhat excited and elated. The present attack, which was characterized by elation and overactivity, had been apparently precipitated by difficulties placed in the way of her marriage by her family.

Many patients are referred to the court where no indication of physical disorder is found but where the misconduct requires for its explanation a searching review of the past life of the patient and of the influences to which he has been subject. Such a review requires not only much time but also the full cooperation of the patient.

(F) *Cases with need of personal guidance on account of misconduct or other symptoms.*

S.T., aged 14, a pleasant and intelligent boy who was brought to the hospital from the court as he had been arrested for breaking and entering. The parents attributed the behaviour of the boy to injuries to the head which he had received. The stealing, however, seemed to be part of a quite complicated situation which involved undesirable sex activities of the patient with a gang of other boys who indulged in stealing. The misconduct in such a case is more than an individual function, it is a function of a social situation. The boy, after leaving the wards of the hospital, kept in touch with the Out-Patient Department in order that he might benefit by a fuller study of his problem.

In many of the cases referred by the court the attitude of the patient towards problems of the sex life is an important factor. A study of these patients furnishes valuable material for the understanding of the sex life in general, and this knowledge is of great importance for outlining the general principles which are helpful for the direction of the normal individual in regard to this important question.

As can be seen from these brief notes, the psychiatrist has to be somewhat amphibian, at one time he is dealing with detailed problems of the biochemistry of the system and with the functioning of the individual organs, at another time he is dealing with the organization of human nature and with the reaction of the individual to a social environment which is permeated with cultural values. To do justice to this varied material one requires the laboratory facilities and the technical personnel which are necessary for the investigation of the bodily functions, but one also needs facilities and personnel equipped for the analysis of the personality of the individual patients and for the study of the environmental influences to which he has been subject.

Among the physical conditions which have come up for careful examination and treatment may be mentioned diabetes, pernicious anemia, tuberculosis, hypothyroidism, arteriosclerosis, gastro-intestinal disorders and heart disease.

With regard to the personality of the patients, the greatest variety of endowment is met with and the patients show a very wide range of intelligence. A study of the personality is much more complicated than the measuring of the intelligence with a standard series of tests; it includes an appreciation of the role played by the emotions, the instincts, the creative imagination and rational thought, and of the experiences through which the individual patient has gone and which have helped to determine his special sensitiveness and scheme of values.

#### ON TREATMENT IN GENERAL: ON THE NURSING SERVICE AND ON THE DEPARTMENT OF OCCUPATIONAL THERAPY

It is sufficiently apparent from the brief data given above on a few patients that treatment in the Boston Psychopathic Hospital has to cover not only the special problems of abnormal behaviour and of abnormal subjective attitudes but also the various physical disorders which may be at the basis of the above manifestations. In general medicine the tendency has been to concentrate too much on the physical disease and to neglect the patient, while the converse fault of psychiatry may have been to focus too exclusively on the more complicated functions and to neglect the presence of underlying somatic disorders. Treatment of the mental patient requires due attention to both factors, and the heart and blood, nutrition and ex-



cretion, must receive the same careful attention which they receive in a general hospital, while disordered activity and mood, hallucinations and delusions, present a further demand on the therapeutic interest of the physician. The management and treatment of the patient involves not only attention to the ordinary bodily needs, but in addition some program of activity; a tolerant and encouraging atmosphere is of the greatest importance, and there must be ample opportunity for the patient to unburden himself of disturbing preoccupations.

In supplying these conditions the nursing staff and the occupational therapists play an important role. The large number of patients and the brief stay of many patients in the hospital present special difficulties, and the limited facilities of the occupational department make it only possible for the patients to spend a brief part of each day in some special craft. The work of the department is in unusually skilled hands, and the patient is encouraged to see his work not as an idle pastime but as a contribution to the needs of the social group with which he is temporarily associated. In the nursing force the presence of a group of affiliated nurses, who spend three months in this hospital as part of their general training, is now an established arrangement the advantages of which have been emphasized in previous reports.

#### ON THE SOCIAL SERVICE DEPARTMENT

The progress of medicine has extended the feeling of responsibility of the physician in some directions. He no longer feels content to give advice with regard to symptoms or underlying disease on the basis merely of the data which the individual patient brings to him and of the observation which he himself can personally make. He frequently requires data from other sources besides the patient himself, and he knows that for the efficient carrying out of the treatment some additional personal service must be at the disposal of the patient. Modern medicine, therefore, makes use of the ancillary service of trained workers, whose role it is to help the physician in his investigations and in his treatment.

If such service is of use in general medicine, it may be said to be indispensable in the field of mental disorders, with the complexity of its data and its handicap of evil traditions. In many cases, without the data which are obtained from the psychiatric social worker, the physician cannot fully understand the origin of the symptoms with which he has to deal and their essential nature; without the same help he is unable to translate into actual terms in the concrete situation the general principles of treatment. For the readjustment of the individual to his concrete life situation it may be necessary not only to put the physical health of the patient on a sound basis, to bring some harmony into the conflicting factors of human nature, but also to modify the social environment and to encourage and advise the patient during the transition period when he is reestablishing himself in the community.

For this work the psychiatric social worker is specially trained. Individual workers have their own special interests, and any attempt to define too strictly the exact role of the psychiatric worker, and to make this definition binding on the group is probably a mistaken effort. Some workers prefer to confine their activity more to the investigative side of the work; others, and these apparently in the large majority, wish to feel that they are contributing to the treatment of the patient. There may be some who, in their zeal for treatment, overstep judicious bounds, but the physician does well to encourage this healthy therapeutic interest so long as it is not combined with pretentiousness or lack of insight into personal and professional limitations.

In psychiatric social work, as in the work of the psychiatrist himself, time is an important factor: intensive work on a patient is very time-consuming so that only few patients can have their cases taken up in this way. Here, too, the important task is to choose judiciously those cases which require intensive treatment and to leave a reasonable amount of time for the somewhat less intensive work which may be required by a very large number of the patients.

The psychiatric social worker has the problem not only of cooperating with the hospital personnel in their work with the patients in the hospital, but also the task of cooperating with the varied agencies which refer patients to the hospital for study, diagnosis or treatment. Those patients who are sent by the court, by the

school, by welfare agencies, etc., are often brought merely for a single consultation to the Out-Patient Department. In some cases the agencies wish the patient to keep in touch with the Out-Patient Department, and to be under the complete supervision of the department. In other cases the agency wishes a report from the psychiatrist which will enable them to carry out more efficiently their own special function. The report of a psychiatrist to an agency, especially when based on a single interview, is apt to be of a somewhat formal nature. It may contain a specific statement as to the physical status of the patient, it may give a more or less precise indication of the level of intelligence as indicated by standard tests, but it cannot cover that analysis of the personality of the patient, of special trends, of the general mental assets and liabilities, which should be the basis for further constructive work. Some of this material may have come to the observation of the psychiatrist and be of practical importance but may not find its way into the official report to the agency. The psychiatric social worker is able in many cases to act as the intermediary between the psychiatrist and the agency and to make more concrete and more specific the report which the agency receives.

In addition to such practical demands made upon her, the psychiatric social worker is faced with special problems of method and of interpretation. During the past year some of these problems have been made the subject of research by individual workers, and the results of these investigations have been submitted in the form of theses for the M. A. degree.

#### ON RESEARCH

The preceding remarks have given some idea of what is included in the routine practical demands made on the hospital in the study and treatment of the patients who are admitted there.

In dealing with these varied problems the psychiatrist, more than any other medical specialist, is forced to recognize that his specialty is an art rather than a science, and that he is dealing in an empirical and intuitive way with many problems. He realizes the urgent necessity of careful investigation in order that his examination and diagnosis should be more precise and his treatment more specific. The problems which he meets in the wards inevitably suggest topics for special investigation, and it is one of the main problems of the hospital to see that this spirit of curiosity is utilized for productive research.

There is an embarrassing choice of problems at which to work. The special piece of work chosen by the individual physician depends partly upon the problems which are brought by the patients and partly upon his own temperamental interests and previous training. One physician may be more interested in the intimate mechanisms of the biochemical changes or of the structural damage which are at the basis of conditions of mental confusion; another may be more interested in the more complex determinants of human personality, in the evolution of the sex instinct and the way in which it moulds the whole personality. A third may be more interested in the question of psychological types. Other workers again may be interested in the social factors which mould the life of the individual, in the cultural factors which determine his beliefs, in the environmental influences of home, school, playground and workshop.

The reports from the special departments give some idea of the lines along which various workers are carrying on special investigations. Dr. Grabfield, in charge of the laboratory of internal medicine, where investigations are made on the general chemical changes in mental disorders, refers to one or two special topics of investigation in this field.

Mrs. Sanborn has finished the report of her painstaking studies on the bacteriological flora of the intestinal tract, and two communications embodying her results are in press and will shortly appear.

Dr. Solomon gives in some detail an account of the reaction of stuporous patients to the administration of carbon dioxide. With the cooperation of several workers he is investigating in detail the factors involved in this reaction. He also refers to special pieces of work in regard to the treatment of epilepsy and of neurosyphilis and calls attention to the fact that important investigative work is sometimes seriously handicapped by lack of financial support.

The systematic work which is being carried on in the psychological laboratory is



presented in a very concise way by Dr. Wells, but the brevity of this report should not obscure its importance; the painstaking and consistent work which is being done in the field of mental tests is not only of value to the hospital but makes an important contribution to all those interested in the field of clinical psychology.

It is many years since the hospital has had in charge of the neuropathological laboratory a physician whose whole time was available for the post mortem study of cases who died at the hospital, and for detailed investigation of the anatomical changes associated with the various forms of mental disorder. Dr. Fulstow, the state pathologist, is acting chief of the neuropathological laboratory, but her state duties make heavy demands upon her time so that the want of intensive research into the anatomical basis of mental disorders makes the scientific work of the hospital not so well balanced as it ought to be. It is hoped that it will be possible to return to the situation in 1920 when the pathologist of the hospital was able to give her full time to this special line of research.

Special attention has been given during the past year, as during previous years, to clinical research on schizophrenia, a disorder or group of disorders with a rather serious outlook and where the underlying causes are complex and subtle. The patients with this type of disorder are the patients who tend to accumulate in the large state hospitals and form the large bulk of the chronic population of the latter.

With funds allotted by the Laura Spelman Rockefeller Foundation a special personnel has been available for carrying on research work on this group of cases during the past few years. It is hoped to delimit this group a little more clearly, to make more precise the different types of disorder which are grouped under the term schizophrenia, to study the development of individual cases in a more intensive way, to estimate more accurately the respective importance of constitutional vulnerability, of environmental stresses and strains, of bodily weaknesses in the development of the disorder. The broad issue is to determine how far this mental disorder is to be looked upon as the indication of some underlying physical disturbance and how far it is to be looked upon as the reaction of certain peculiarly vulnerable individuals to the stresses and strains of their own particular environment. Much preliminary work must be done before one can think in terms of a rational treatment or of prevention.

At the present moment it is premature to discuss schizophrenia as if it represented one uniform process; it is quite possible that under this term may be included a large number of groups which have very little kinship among themselves. It is necessary to give some precision to each of these groups, and then to analyze in detail the causative factors in each group. With the help of the research personnel working under the special appropriation referred to, a statistical attack on this problem has now been carried on for some time.

A problem of this nature takes one beyond the analysis of the individual patient into the social environment. The individual cannot be adequately studied as an independent unit but has to be understood as developing in a community with certain modes of belief and certain standards of value, brought up in a family atmosphere which seriously moulds the whole personality, and subjected to important influences in the schoolroom, the playground and the general social and working environment. It is absolutely futile in many cases to attempt to understand the behaviour and the beliefs of the patient if one does not take into account the wider circumstances of his life. To get an accurate picture of these circumstances and to reduce the complexity of environmental influences to a series of precise data is a difficult task. The nature of these difficulties has been made a special subject of investigation to which reference is made in the report from the social service department. Research of this nature into the personal and social background of patients, while taking its start from the problems of a special group of patients in a psychopathic hospital, deals with very fundamental human and social problems and is of considerable importance to those working in education and in the social sciences.

#### ON THE OUT-PATIENT DEPARTMENT

The work of the Out-Patient Department has continued to play the same important part in the total work of the hospital as in previous years. It has served to a certain extent as an admitting service to the hospital, but to a much larger extent

it has been a centre of consultation and treatment for a great variety of patients who are not admitted to the hospital. These patients may have come of their own accord or are brought by some member of the family. They may still be carrying on their ordinary vocation, either in school or in industry.

Many patients do not come because of symptoms which disturb them or because their relatives realize that they are sick, but are brought on account of some special situation. Thus children are referred by the school system in order that the teacher may deal with certain school problems with fuller data and insight than her own professional qualifications allow. Patients are referred in increasing numbers by the courts as it is increasingly recognized that delinquent behaviour in many cases can be intelligently dealt with only in the light of a psychiatric review. Patients, both children and adults, are referred by the greatest variety of welfare agencies in order that these agencies may deal more satisfactorily with their own special problems. Each agency has its own type of material, its own special function, its own personnel, and may demand from the Out-Patient Department a type of service which is somewhat different from that demanded by another agency. One agency may send a child for the sole purpose of having an intelligence test made; another agency sends a somewhat similar case in order that a complete diagnosis may be made; a third agency may refer the patient not only for diagnosis but also for treatment, and expect the hospital to assume complete supervision of the case.

The conditions of work in an out-patient department are of necessity different from those in regard to the patients in the wards of the hospital. The out-patient study of a case can seldom be expected to have the same completeness as the study of a patient who remains under observation in the wards for a period of several days or even weeks. To make an intelligence test requires a certain time, the limitations of which are not difficult to determine. To get into touch with a child so that the child reveals frankly his feelings, his experiences, his attitudes, involves an amount of time which is extremely variable and not easy to foretell in the individual case. It is a great advantage when the agency has already made a thorough and systematic review of the environmental factors and brings to the Out-Patient Department a well arranged record. Where only meagre information as to the social background is available, and the opinion of the psychiatrist has to be based almost altogether on the observation made during the out-patient department interview, the report of the psychiatrist is often guarded and incomplete, and the agency may be at times impatient that so little help has been given on the individual case.

For the best utilization of the facilities of the clinic mutual understanding by the hospital and by the agencies of their respective spheres of work and their respective limitations is important. A cooperative attitude should lead to a deeper appreciation by the hospital personnel of the mental health needs of the community and of the facilities available in this field, and on the other hand to a growing sensitiveness of welfare workers to the mental health aspect of their special welfare tasks and to the type of help which they can reasonably expect to get from the psychiatrist and his associates.

In conclusion I wish to express my appreciation of the spirit of good-will, loyalty, and earnest endeavor shown by the staff and other workers at the hospital. The thanks of the staff are especially due to the consulting physicians who respond with so much generosity to the frequent calls made upon them by the resident staff. The Chief Executive Officer has an extremely complicated task to fulfill, and his efficient and tactful response to the numerous and ever varying demands that are made upon his resources gives the clinical staff the opportunity to carry on their work on the wards in an uninterrupted manner.

The thanks of the Director are especially due to the members of the Board of Trustees who have during the past year, as in previous years, been very assiduous in their attendance at Board meetings and have taken every opportunity of offering helpful and constructive advice, and to Dr. Kline, Commissioner of Mental Diseases, who has always been available for consultation and advice and has continued to give his support to any measure which promised to maintain or improve the standards of work at the hospital.

Respectfully submitted,  
C. MACFIE CAMPBELL,  
*Medical Director.*

## Annual Statistics Classified According to Legal Status, October 1, 1927 to September 30, 1928

PSYCHOSES	All First Admissions		All Readmissions		First Admissions by Regular Court Commitment		Readmissions by Regular Court Commitment		Temporary Care First Admissions		Temporary Care Readmissions		Voluntary First Admissions		Voluntary Readmissions	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Traumatic psychoses . . . . .	8	-	1	-	2	-	-	-	6	-	1	-	-	-	-	-
Senile psychoses . . . . .	4	6	-	-	1	1	-	-	5	9	-	-	-	-	-	-
Psychoses with cerebral arteriosclerosis . . . . .	53	29	3	3	7	2	-	-	46	26	3	3	-	-	-	-
General paralysis . . . . .	79	17	96	5	6	24	4	28	51	13	64	4	1	1	4	-
Psychoses with cerebral syphilis . . . . .	6	14	2	-	2	1	3	-	4	7	11	2	-	-	-	-
Psychoses with brain tumor . . . . .	2	3	5	-	1	2	3	-	1	1	2	-	-	-	-	-
Psychoses with other brain or nervous diseases:																
Cerebral embolism . . . . .	-	1	1	-	-	-	-	-	-	1	1	-	-	-	-	-
Multiple sclerosis . . . . .	1	1	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Acute chorea . . . . .	5	2	7	3	1	4	-	-	5	2	7	3	1	4	-	-
Encephalitis lethargica . . . . .	27	17	44	5	3	8	-	-	25	17	42	5	2	7	2	-
Undetermined . . . . .	9	5	14	-	7	5	12	-	2	-	2	-	-	-	-	-
Other types . . . . .	3	-	3	2	-	-	-	-	2	2	2	2	1	1	-	-
Alcoholic psychoses:																
Type undetermined . . . . .	30	5	35	5	1	1	-	-	25	5	30	5	4	4	-	-
Delirium tremens . . . . .	5	3	8	1	1	1	2	-	4	2	6	1	-	-	-	-
Korsakow's syndrome . . . . .	42	4	46	12	2	14	-	-	41	4	45	12	2	14	1	-
Acute hallucinosis . . . . .	25	2	27	9	3	12	2	-	23	2	25	9	3	12	-	-
Other types . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychoses due to drugs and other exogenous toxins:																
Type undetermined . . . . .	1	-	1	-	-	-	-	-	1	-	1	-	-	-	-	-
Opium and derivatives . . . . .	4	4	8	1	1	2	-	-	4	4	8	1	1	2	-	-
Other exogenous toxins . . . . .	1	1	2	1	-	1	-	-	1	1	2	-	-	-	-	-
Psychoses with pellagra . . . . .	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychoses with other somatic diseases:																
Delirium with infectious diseases . . . . .	2	2	4	-	-	-	-	-	2	1	3	-	-	-	-	-
Type undetermined . . . . .	-	1	1	-	-	-	-	-	-	1	1	-	-	-	-	-
Post-infectious psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Delirium of unknown origin . . . . .	5	2	7	-	1	2	3	-	3	-	3	-	1	1	-	-
Cardio-renal diseases . . . . .	1	7	8	-	-	3	3	-	1	4	5	-	-	-	-	-
Diseases of the ductless glands . . . . .	1	3	3	-	-	-	-	-	3	3	3	-	-	-	-	-
Other diseases or conditions . . . . .	4	26	30	-	1	1	10	-	4	16	20	-	1	1	-	-
Manic-depressive psychoses:																
Manic type . . . . .	22	34	56	10	31	41	1	4	21	30	51	10	24	34	-	1
Depressive type . . . . .	34	70	104	6	17	23	3	10	31	58	89	6	16	22	2	2
Other types . . . . .	4	14	18	3	5	8	1	1	3	13	16	3	5	8	-	-
Involution melancholia . . . . .	1	9	10	1	1	2	1	1	9	9	9	1	1	1	-	-
Dementia praecox (schizophrenia) . . . . .	89	78	167	25	21	46	19	13	66	64	130	23	20	43	4	1



Paranoia of paranoid conditions	30	31	61	10	8	18	2	1	3	-	-	-	27	29	56	10	8	18	1	1	2	-	-	-
Epileptic psychoses	23	6	29	7	6	13	1	1	1	-	-	-	22	6	28	7	6	13	-	-	-	-	-	-
Psychoneuroses and neuroses:																								
Hysterical type	2	7	9	-	2	2	-	2	2	-	-	-	2	4	6	-	1	1	1	1	1	1	1	1
Psychasthenic type	2	5	13	1	2	2	-	-	-	-	-	-	1	5	6	-	1	1	1	-	-	-	-	-
Neurasthenic type	7	6	10	-	2	2	-	-	-	-	-	-	7	6	13	-	2	2	-	-	-	-	-	-
Other types	2	8	20	-	1	1	1	1	1	-	-	-	1	8	9	-	1	1	1	-	-	-	-	-
Psychoses with psychopathic personality	12	11	23	3	4	7	1	1	1	-	-	-	11	10	21	3	3	6	1	-	1	-	-	-
Psychoses with mental deficiency	15	14	29	7	9	16	1	1	1	-	-	-	13	14	27	7	8	15	1	-	1	-	-	-
Undiagnosed psychoses	152	101	253	29	20	49	13	13	26	-	3	3	135	88	223	29	17	46	4	-	4	-	-	-
Diagnosis deferred	15	8	23	-	1	1	-	-	-	-	-	-	14	8	22	-	1	1	1	-	1	-	-	-
Without psychoses:																								
Epilepsy without psychoses	9	6	15	-	1	1	-	-	-	-	-	-	9	6	15	-	1	1	-	-	-	-	-	-
Alcoholism without psychoses	17	-	17	3	-	3	-	-	-	-	-	-	15	-	15	3	-	3	2	-	2	-	-	-
Drug addiction without psychoses	4	2	6	-	1	1	-	-	-	-	-	-	4	2	6	-	1	1	-	-	-	-	-	-
Psychopathic personality without psychoses	55	33	88	10	5	15	-	-	-	-	-	-	51	32	83	10	3	13	4	1	5	-	2	2
Mental deficiency without psychosis	19	41	60	6	5	11	-	-	-	-	-	-	19	40	59	6	5	11	-	1	1	-	-	-
Other conditions	29	23	52	5	2	7	-	-	-	2	-	2	23	20	43	3	2	5	6	3	9	-	-	-
Epilepsy with mental deficiency	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
For diagnosis	19	28	47	1	5	6	-	-	-	-	-	-	17	28	45	1	5	6	2	-	2	-	-	-
Total	889	685	1,565	177	163	340	91	77	168	6	13	19	749	597	1,346	170	144	314	40	11	51	1	6	7



Annual Statistics Classified According to Legal Status, October 1, 1928 to September 30, 1929.

PSYCHOSES	All First Admissions			All Readmissions			First Admissions by Regular Court Commitment		Readmissions by Regular Court Commitment		Temporary Care First Admissions			Temporary Care Readmissions			Voluntary First Admissions		Voluntary Readmissions		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Traumatic psychoses . . . . .	9	3	12	1	-	1	-	1	1	-	9	2	11	1	-	1	-	-	-	-	-
Senile psychoses . . . . .	3	4	7	-	2	2	-	1	1	-	3	3	6	2	2	-	-	-	-	-	-
Psychoses with cerebral arteriosclerosis . . . . .	26	22	48	1	1	2	-	1	1	-	23	21	44	1	1	2	2	-	-	-	-
General paralysis . . . . .	80	11	91	10	10	31	-	31	3	-	47	11	58	5	5	2	2	2	2	2	2
Psychoses with cerebral syphilis . . . . .	6	2	8	1	2	3	-	1	-	-	4	2	6	1	2	3	1	1	-	-	-
Psychoses with brain tumor . . . . .	4	2	6	-	1	1	-	1	-	-	3	2	5	-	1	1	-	-	-	-	-
Psychoses with other brain or nervous diseases:																					
Paralysis agitans . . . . .	1	-	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Tubercular meningitis . . . . .	2	-	2	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-
Multiple sclerosis . . . . .	-	1	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
Acute chorea . . . . .	-	2	2	-	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1	-	-
Encephalitis lethargica . . . . .	8	-	8	3	-	3	-	-	-	-	8	-	8	3	-	3	-	-	-	-	-
Undetermined . . . . .	16	13	29	2	2	4	-	-	1	1	15	13	28	1	2	3	1	-	1	-	-
Other types . . . . .	1	-	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Alcoholic psychosis:																					
Type undetermined . . . . .	-	1	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
Delirium tremens . . . . .	30	5	35	10	-	10	-	-	-	-	30	5	35	9	-	9	-	-	1	-	1
Acute hallucinosis . . . . .	24	6	30	6	3	9	-	-	-	-	23	6	29	6	3	9	1	-	1	-	-
Other types . . . . .	43	7	50	10	1	11	2	2	4	-	41	5	46	10	1	11	-	-	-	-	-
Psychoses due to drugs and other exogenous toxins:																					
Psychoses due to metals, as arsenic, lead, etc.																					
Opium and derivatives . . . . .	2	-	2	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-
Other exogenous toxins . . . . .	5	5	10	3	1	4	-	-	1	-	5	5	10	2	1	3	-	-	-	-	-
Psychoses with pellagra . . . . .	2	1	3	-	1	1	-	1	-	-	1	1	2	-	-	-	-	-	-	-	-
Psychoses with other somatic diseases:																					
Delirium with infectious diseases																					
Post-infectious psychoses . . . . .	2	5	7	-	-	-	-	1	2	3	1	3	4	-	-	-	-	-	-	-	-
Exhaustion delirium . . . . .	1	1	2	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-
Delirium of unknown origin . . . . .	1	8	9	-	-	-	-	1	6	7	1	-	2	-	-	-	-	-	-	-	-
Cardio-renal diseases . . . . .	7	5	12	-	-	-	-	2	1	3	-	2	4	-	-	-	-	-	-	-	-
Other diseases or conditions . . . . .	3	22	25	-	3	3	1	6	7	-	5	4	9	-	-	3	1	1	-	-	-
Undetermined . . . . .	-	2	2	-	-	-	-	-	-	-	2	2	2	-	-	-	-	-	-	-	-
Manic-depressive psychoses:																					
Manic type . . . . .	14	43	57	14	16	30	-	10	10	1	14	33	47	12	13	25	-	-	1	-	1
Depressive type . . . . .	33	70	103	13	12	25	2	6	8	2	30	63	93	8	10	18	1	1	2	3	-
Other types . . . . .	7	11	18	9	4	13	-	2	2	4	7	8	15	9	4	13	-	-	1	1	-





	17	34	51	6	22	28	1	5	6	1	4	5	16	27	43	5	18	23	-	2	2	-	-
Manic type	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-
Depressive type	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-
Other types	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-
Involution melancholia	83	85	168	13	19	32	3	7	10	-	1	1	78	78	156	13	17	30	2	1	1	-	1
Dementia praecox (schizophrenia)	16	11	27	6	8	14	3	2	5	-	-	-	13	8	21	6	8	14	-	1	1	-	-
Paranoia or paranoid conditions	19	21	40	2	-	2	1	4	32	1	4	5	18	17	35	2	-	2	-	1	2	-	-
Epileptic psychoses	119	91	210	26	23	49	18	14	32	1	4	5	100	76	176	25	19	44	1	1	2	-	-
Psychoneuroses and neuroses:	19	24	43	3	4	7	1	4	5	-	-	-	18	20	38	3	4	7	-	-	-	-	-
Hysterical type	9	9	18	5	6	11	-	-	-	-	-	-	9	9	18	5	6	11	-	-	-	-	-
Psychoasthenic type	12	18	30	-	4	4	-	-	-	-	1	1	5	17	22	-	1	1	7	1	8	-	2
Neurasthenic type	6	6	12	7	1	3	-	-	-	-	-	-	6	4	10	2	1	3	-	2	2	-	2
Other types	19	3	22	4	-	4	-	1	1	-	-	-	18	3	21	3	1	3	1	-	1	-	1
Psychoses with psychopathic personality	2	3	5	1	1	2	-	-	-	-	-	-	2	1	3	1	1	2	-	1	1	-	-
Psychoses with mental deficiency	2	8	10	5	7	12	-	1	1	-	-	-	2	7	9	5	7	12	-	-	-	-	-
Undiagnosed psychosis	6	16	22	6	9	15	-	2	2	-	-	-	6	14	20	6	9	15	-	-	-	-	-
Diagnosis deferred	73	105	178	21	19	40	9	9	18	-	3	3	64	94	158	21	15	36	-	2	2	-	1
Without psychosis:	34	14	48	4	2	6	-	-	-	-	-	-	33	13	46	4	2	6	1	1	2	-	1
With no associated condition	30	13	43	3	1	4	-	-	-	-	-	-	30	13	43	3	1	4	-	-	-	-	-
Epilepsy	3	6	9	1	1	2	-	-	-	-	-	-	3	2	5	1	-	1	-	4	4	-	-
Alcoholism	17	3	20	5	-	5	-	-	-	-	-	-	17	3	20	5	-	5	-	-	-	-	-
Drug addiction	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Psychopathic personality	30	41	71	7	1	8	-	-	-	-	-	-	28	39	67	6	1	7	2	2	4	1	1
Mental deficiency	14	34	48	-	5	5	-	-	-	-	-	-	14	34	48	-	5	5	-	5	1	-	2
Other conditions	46	32	78	5	4	9	-	1	1	-	-	-	41	30	71	3	4	7	-	6	2	-	-
Total	856	693	1,549	184	147	331	92	74	166	2	15	17	732	599	1,331	176	127	303	32	20	52	6	5



## REPORT OF THE OUT-PATIENT DEPARTMENT

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith submit the report of the activities of the Out-Patient Department for the year ending November 30, 1930.

The staff of the clinic during the past year was as follows:

Dr. C. Macfie Campbell, Director of the Hospital.

Dr. Oscar J. Raeder, Chief of Out-Patient Department.

Dr. Mary Palmer, Assistant Physician.

Dr. Charles B. Sullivan, Assistant Physician, part time.

A member of the house staff daily.

Miss Villa T. West, Clinic Manager to August 1.

Miss Annie C. Porter, Clinic Manager from October 13.

*Special Workers:* Dr. Marianna Taylor; Dr. Jessie D. Campbell; Dr. Charles H. Sanford, May 1, 1930, to July 1, 1930; Dr. Donald R. Fletcher.

*Students:* James E. McLester, May 1930; Charles H. Shedd, October 15 to November 15, 1930.

The work consists of the following:

(a) The study and treatment of nervous and mental diseases, including conduct disorders of children.

(b) Examination of retarded children of the Brookline public schools.

(c) Teaching of students and nurses.

During the year 1,109 new cases were studied and treated. Of these 68 were examined in the syphilis division; of the others 439 were adults, 222 adolescents, and 380 children.

Among the adult patients treated, the psychoneuroses formed the largest group, 99 cases. The large majority of these were treated and followed by the clinic and this represents a considerable proportion of the work on account of the time necessarily consumed in the tedious and painstaking exploration of the mind.

Psychoses were next in point of frequency, the manic-depressive 48, the schizophrenic 32, paranoid 8 and other psychoses 28. Among these was a small group of senile psychoses, which were mostly referred to other state hospitals for treatment. Feeble-mindedness was not uncommon among the adults.

Among the children feeble-mindedness was the most common diagnosis made. Many of the conduct disorders, such as truancy, stealing, etc. were based on feeble-mindedness.

Many of the children who scored low on psychometric tests were found to be reading problems, *i.e.*, the psychometric rating was not representative due to a special defect in reading ability. This is one of the most difficult problems to treat inasmuch as these children do not fit in well in the school with the special class group and it is difficult to supply the special instruction in reading required by them. They do not learn to read by the ordinary methods of teaching reading. There were 23 cases of reading difficulty.

An important part of the work of the clinic is that in connection with cases referred by the juvenile courts for diagnosis and advice. These cases are mostly brought by social agencies and often given follow-up treatment in the clinic.

Another considerable group consists of cases referred directly by the schools. Many cases of conduct disorder without defective intelligence swell this group.

The problems of the feeble-minded adolescents are important from the point of view of social economics and public health, *i.e.*, on account of illegitimate pregnancies and the spread of venereal disease. It is in this group that sex is the greatest problem.

The problems of the neurotic child include conditions such as enuresis, temper tantrums, running away and vagrancy, many of which too often find their cause in the ignorance of the parents or in parental neglect and other social problems of the family. The clash between old world customs and American codes is a frequent factor in the troubles of children of foreign born parents.

The school survey of the Brookline schools was conducted by Dr. Mary Palmer with the aid of the psychologist, the social worker and the school nurse. The figures of this report are given herewith:

## SCHOOL SURVEY OF BROOKLINE SCHOOLS 1929-1930

School Clinic Staff: Dr. Mary Palmer, Psychiatrist, Mrs. Gertrude Pierce, Teacher; Mrs. Helen C. Bowie, Psychologist, Miss Ethel A. Gleason, Social Worker.

*Names of Schools and Number of Students Referred*

Baldwin . . . . .	4	Parsons . . . . .	3
Devotion . . . . .	4	Pierce . . . . .	8
Driscoll . . . . .	10	Winthrop . . . . .	4
Heath . . . . .	27	Runkle . . . . .	28
Lawrence . . . . .	4	Sewall . . . . .	8
Lincoln . . . . .	30		
Total . . . . .			130

## Pupils in Survey first time:

Boys . . . . .	46	Girls . . . . .	28
Pupils in previous Survey:			
Boys . . . . .	39	Girls . . . . .	17

## Summary of results from the point of view of the Intelligence Quotient:

I. Q. .69 or below		I. Q. 70-80		I. Q. 80-90	
Boys	Girls	Boys	Girls	Boys	Girls
4	2	18	5	13	15
I. Q. 90-110		I. Q. 110 or above			
Boys	Girls	Boys	Girls		
40	20	10	3		

Of the new cases studied it was recommended that 11, of whom 6 were boys and 5 girls, should be placed in a special class. Of the old cases seen again it was felt that 9, 8 boys and 1 girl, should be in a special class. It was recommended that 1 boy should have institutional care.

On the basis of chronological age, using  $6\frac{1}{2}$  years in first grade as a standard:

44 students were 2 years retarded.

21 students were 3 years retarded.

1 student was 4 years retarded.

## Group showing retardation of 2 years:

5 students had an I. Q. of 70-80.

12 students had an I. Q. of 80-90.

23 students had an I. Q. of 90-110.

4 students had an I. Q. of 110 or above.

## Group showing retardation of 3 years:

4 students had an I. Q. of 70-80.

5 students had an I. Q. of 80-90.

10 students had an I. Q. of 90-110.

2 students had an I. Q. of 110 or above.

## Group showing retardation of 4 years:

1 student had an I. Q. of .75.

The following tables are self-explanatory and indicate further the nature and scope of the clinic activities.

## STATISTICS OF THE OUT-PATIENT DEPARTMENT

October 1, 1929, to September 30, 1930.

Total New Cases . . . . .	1,109
Out-Patient Department . . . . .	1,041
Syphilis Division . . . . .	68

New Patients:	Male	Female	Total
Adults . . . . .	223	216	439
Adolescents . . . . .	76	146	222

Children . . . . .	204	176	380
	<hr/> 503	<hr/> 538	<hr/> 1,041
Plus:			
Syphilis Patients . . . . .	25	43	68
	<hr/> 528	<hr/> 581	<hr/> 1,109

<i>Nationality</i>						
	M.	F.	T.		M	F. F.
African . . . . .	10	20	30	Italian . . . . .	52	46 98
Albanian . . . . .	3	1	4	Lithuanian . . . . .	1	7 8
Armenian . . . . .	3	3	6	Magyar . . . . .	3	0 3
Bulgarian . . . . .	1	0	1	Portuguese . . . . .	5	6 11
Chinese . . . . .	2	0	2	Scandinavian (not		
Dutch . . . . .	1	1	2	specified) . . . . .	14	13 27
English . . . . .	109	132	241	Scotch . . . . .	19	18 37
Finnish . . . . .	0	2	2	Slavonic . . . . .	12	9 21
French . . . . .	14	30	44	Spanish . . . . .	1	0 1
German . . . . .	5	12	17	Syrian . . . . .	1	8 9
Greek . . . . .	8	2	10	Mixed . . . . .	22	18 40
Hebrew . . . . .	69	48	117	Race unascertained .	61	69 130
Indian (American) .	1	0	1		<hr/>	<hr/>
Irish . . . . .	86	93	179	Total. . . . .	503	538 1041

<i>Referred by</i>				M.	F.	T.
Boston Psychopathic Hospital . . . . .				15	15	30
Other hospitals . . . . .				90	97	187
Local physicians . . . . .				71	46	117
Social Agencies . . . . .				175	270	445
Schools . . . . .				33	20	53
Court . . . . .				32	10	42
Relatives and friends . . . . .				69	58	127
Police . . . . .				1	2	3
Own initiative . . . . .				17	20	37
				<hr/> 503	<hr/> 538	<hr/> 1,041

#### *Problems*

##### *a. Behavior problems:*

Seclusiveness, sex delinquency, misconduct, larceny, litigiousness.

##### *b. School problems:*

Intelligence rating, reading difficulty, retardation, speech defect, truancy.

##### *c. Personality problems:*

Lack of ambition, lack of concentration, inability to hold positions, inability to work.

##### *d. Domestic problems:*

Sexual maladjustments, advisability of sterilization, incompatibility.

##### *e. Nervousness:*

Shaking, fears, timidity, numb feeling, worries, insomnia, depression, hysteria, enuresis, delusions, hallucinations, eating difficulty, sleeping difficulty, stammering, listlessness, day dreaming, night terrors, twitching, excitability, somnambulism, mood swings, over-religiousness, epilepsy, convulsions, amnesia, muscular atrophy, chorea, irritability, alcoholism.

##### *f. Routine examinations (for adoption, etc.)*

##### *g. Vocational guidance.*

*Diagnosis*

Psychoses:	Male	Female	Total
Manic depressive . . . . .	26	22	48
Schizophrenic . . . . .	18	14	32
Paranoid . . . . .	1	7	8
Arteriosclerotic . . . . .	0	1	1
Neurosyphilic; paretic . . . . .	6	1	7
Alcoholic . . . . .	2	0	2
Epileptic . . . . .	1	0	1
With other brain or nervous diseases . . . . .	4	2	6
With somatic disease . . . . .	0	1	1
With feeble-mindedness . . . . .	1	1	2
Due to exogenous toxins (drugs) . . . . .	1	0	1
Post-puerperal (mild) . . . . .	0	1	1
Unclassified . . . . .	1	5	6
Psychoneuroses . . . . .	55	44	99
Psychopathic personality . . . . .	10	8	18
Constitutional psychopathic inferiority . . . . .	2	4	6
Neurotic child . . . . .	13	19	32
Epilepsy . . . . .	6	7	13
Chorea . . . . .	1	2	3
Parkinson's disease . . . . .	0	1	1
Post-encephalitic syndrome . . . . .	1	0	1
Chronic alcoholism . . . . .	1	1	2
Organic brain and nervous disease . . . . .	4	2	6
Multiple sclerosis . . . . .	1	0	1
Arteriosclerosis . . . . .	3	0	3
Malingering . . . . .	1	0	1
Abnormal environment . . . . .	5	8	13
Without psychosis . . . . .	2	1	3
Intelligence ratings:			
Superior intelligence . . . . .	21	22	43
Average intelligence . . . . .	59	72	131
Borderline intelligence . . . . .	92	134	226
Feeble-mindedness . . . . .	53	70	123
Mongolian idiocy . . . . .	0	2	2
Cretinism . . . . .	0	2	2
Microsomia . . . . .	0	1	1
Hydrocephalus . . . . .	0	1	1
Reading defect . . . . .	16	12	28
Stammering . . . . .	2	0	2
Uncertain diagnosis:			
Personality problems . . . . .	8	1	9
Behavior problems . . . . .	34	24	58
Traumatic . . . . .	2	0	2
Endocrine disorder . . . . .	1	0	1
Chorea . . . . .	1	1	2
Early psychosis . . . . .	0	2	2
Beginning progressive muscular atrophy . . . . .	1	0	1
Rickets . . . . .	0	1	1
Diabetes . . . . .	0	1	1
Alcoholic residual . . . . .	1	0	1
Chronic invalidism . . . . .	1	0	1
Deferred . . . . .	45	40	85
	503	538	1,041



*Disposition*

	Male	Female	Total
Treatment in Out-Patient Department . . . . .	276	218	494
Admitted to Boston Psychopathic Hospital . . . . .	34	37	71
Institution for F. M. advised . . . . .	8	8	16
State Hospital advised . . . . .	11	7	18
Referred to General Hospital . . . . .	3	4	7
Report to court . . . . .	28	9	37
Report to school . . . . .	4	2	6
Report to social agency . . . . .	138	251	389
Institution (Lancaster) advised . . . . .	0	1	1
Return to work advised . . . . .	1	0	1
Referred to habit clinic . . . . .	0	1	1
	<hr/> 503	<hr/> 538	<hr/> 1,041

*Visits*

Total visits . . . . .	2,493
Visits of new patients . . . . .	1,794
Out-Patient Department . . . . .	1,726
Syphilis Clinic . . . . .	68
Visits of old patients . . . . .	699
Clinic days . . . . .	303
Average attendance per day . . . . .	8

*Visits per Year*

## New Patients:

Number of patients	Number of visits	Total visits
718	1	718
185	2	370
59	3	177
43	4	172
11	5	55
2	6	12
7	7	49
5	8	40
4	9	36
4	12	48
1	15	15
1	16	16
1	18	18
<hr/> 1,041		<hr/> 1,726

## Old patients:

188	1	188
94	2	188
16	3	48
32	4	128
15	5	75
12	6	72
<hr/> 357		<hr/> 699

The part played by the psychological department is of the utmost importance, not only in the measurement of intelligence in cases of feeble-mindedness and others, but also in discovering other abnormalities such as reading disabilities, and giving advice for their correction.

Much of the success of the clinic is due to the cooperation of the Social Service Department. A great amount of time is required for follow-up treatment of cases as well as for investigating and gathering data often necessary for diagnosis and treatment by the psychiatrist.

The teaching of psychiatry to students of medicine and affiliating nurses has been carried on as before.

Clinical staff meetings were held twice weekly for the discussion of problems, and these meetings, presided over by the Director, have been important and valuable to patient and student alike.

Bi-weekly executive staff meetings, in which each case is considered, have been valuable to psychiatrist, psychologist and social workers in furnishing a forum for interplay and development of ideas very beneficial to the daily work of the clinic.

The daily contact, consultation, and the whole-hearted cooperation of the staff, of all the physicians, psychologists and social workers has been not only a very important factor in the success of the clinic but also the basis of a delightful esprit de corps and a wholesome atmosphere in which to work.

Respectfully submitted,

OSCAR J. RAEDER,

*Chief of Out-Patient Dept.*

## REPORT OF THE CHIEF MEDICAL OFFICER

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith submit the medical report for the year.

There have been comparatively few changes in the medical service during the past year. There has been the usual change of personnel as the medical staff is composed entirely of physicians who are here for training so that many changes occur each year. There were more than the usual number of changes occurring on the first of September, 1930, and only one member of the medical staff remained on for the coming year. This raises the question as to whether it would be better to have some appointments occurring at some other time of the year, for example March 1st, in order that there should not be such a great change in the medical staff at one time.

In last year's report, it was noted that there had been a marked increase in the number of physically sick patients admitted to this hospital. This condition has continued throughout the present year and has tended to complicated matters at times as we have had a large number of physically sick patients in the hospital too sick to be transferred to other hospitals. As our bed capacity is only 100, and as the admission rate is about 1900 during the year, it will be seen that these cases form a difficult problem. It is often impossible to secure an ambulance to transfer them to another hospital, and at times the hospital has had to keep such patients for a period of several months. If patients are admitted with acute, curable physical disorders, it is quite suitable for them to remain in the Boston Psychopathic Hospital, which is especially equipped for dealing with them; where such cases are suffering from chronic disorders they limit the number of other patients who can be kept on at the hospital, with no particular benefit to the chronic cases, which ultimately have to be transferred to some other state hospital.

During the year there have been a number of interesting physical and neurological cases, presenting such conditions as brain tumor, pernicious anemia, pellagra and many of the more common medical conditions such as diabetes, pneumonia and kidney conditions.

Ward A has again been utilized for cases of general paresis and has been open continuously through the year.

Ward B has been open for part of the time, and further work on the reaction of stuporous patients to carbon dioxide and sodium amytol has been carried out.

Through a special appropriation, we have secured equipment for diathermy, ultra-violet and infra-red therapy. Arrangements have been made for the x-ray technician, Mrs. Morgan, to secure special training in the use of the equipment and through the kindness of Dr. Bryan, Superintendent of the Worcester State Hospital, she has spent time at that hospital receiving instructions. This new equipment will be put into use this coming year.

In addition to the regular staff of the hospital, five Commonwealth Fund Fellows in Psychiatry are working at the hospital. The presence of these men, four of whom have completed internships at this hospital, is very helpful.

Dr. Kaufman has recently returned from a year's study in Vienna and is doing some intensive work in psychoanalysis with certain cases with psychoses.

Dr. Scott is making a special study of depressions, with special attention to the gastric function.

Dr. d'Elseaux is assisting Dr. Solomon in a study of stuporous cases, making careful biochemical studies.

Dr. Coon is assisting Dr. Campbell in a clinical study of the schizophrenic conditions.

Dr. Saul is working partly in the clinical field, partly in the physiological laboratory.

The special research on schizophrenia, financed by the Laura Spelman Rockefeller Foundation, has continued throughout the year.

In this research two psychiatrists, a statistician, four social workers and a stenographer have been utilized in securing more extensive and accurate data concerning selected cases of schizophrenia, and control cases of general paresis and manic-depressive psychoses.

This research is another example of how the hospital is attracting around it a large number of special workers. This results in more intensive study of the individual patients and in the accumulation of important scientific data. Such work is of great advantage to the hospital and to the State, but it also imposes further responsibility on the staff and complicates still further the routine of a busy hospital.

At the present time, with research workers supported by private funds, and a number of physicians coming, not only from the United States, but from other countries, for training, it seems worth while pointing out that the physical equipment of the hospital has changed very little since the hospital was built.

If an addition could be built to the hospital with special research wards and added equipment, further progress could be made in attacking some of the fundamental problems of mental disease.

At the present time, with a bed capacity of 100, and an admission rate of 1,900, it is not possible to keep as many cases for intensive study and treatment as is desirable. The hospital is often over-crowded and because of the great fluctuation in the admission rate, a number of beds must always be available for new admissions. With additional beds for research, this problem would be much less acute.

The report of Dr. Dalton, the resident dentist, follows:

Patients examined . . . . .	1,656
Patients receiving treatment. . . . .	974
Extractions . . . . .	1,035
Fillings . . . . .	455
Prophylaxis . . . . .	256
Plates . . . . .	3
Other treatments . . . . .	221

X-ray studies of 66 cases showed infection in 24, doubtful infection in 15, negative in 23, impacted teeth in 4.

The X-ray report for the year is given below:

	Number of patients X-rayed		
	Male	Female	Total
December 1929 . . . . .	33	40	73
January 1930 . . . . .	35	23	58
February 1930 . . . . .	36	29	65
March 1930 . . . . .	40	38	78
April 1930 . . . . .	30	40	70
May 1930 . . . . .	24	29	53
June 1930 . . . . .	19	33	52
July 1930 . . . . .	34	23	57
August 1930 . . . . .	34	21	55
September 1930 . . . . .	30	13	43
October 1930 . . . . .	32	34	66



P.D. 137			25
November 1930	39	19	58
	386	342	728

		<i>Anatomy</i>	
	Total		Total
Gastro-intestinal series	37	Knees	12
Teeth	49	Mastoid	4
Skull	248	Elbows	12
Chest	230	Shoulders	8
Ribs	8	Coccyx	3
Pelvis	9	Hips	9
Spine	23	Graham gall-bladder	8
Sinuses	28	Kindeys	15
Feet	39	Barium enema	6
Hands	31	Pneumograph	9
Total			788

In many cases of mental disease, a satisfactory history cannot be obtained, the patient is not cooperative, and even physical examination may be difficult. Cases of brain tumor, brain abscess, fracture of the skull, pneumonia or other chest condition may be brought into the hospital with no information to aid in the diagnosis. For this reason a much larger number of x-ray examinations are made than would be required if fuller data were available in all cases.

In spite of the increased appropriation for medical supplies, it has again been difficult to keep within the budget. The increased use of the x-ray, which should be encouraged, means that still further money is necessary if one is to utilize this department to the fullest extent.

Respectfully submitted,  
 KARL M. BOWMAN,  
*Chief Medical Officer.*

REPORT OF BIOCHEMICAL LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

This year has brought forth no particular changes in the personnel or administration of the laboratory, but this report is sufficiently near to the end of the first decade of the laboratory, under the present administration, for it to seem desirable to cast up certain accounts and, perhaps, suggest improvements or changes.

The first question that comes to mind is the exact function of the "bio-chemical" laboratory. This is somewhat of a misnomer as it serves to include most of the medical laboratory activities of the hospital. It appears to us that the functions may be divided into three parts: first, the provision of clinical laboratory service for the wards; second, the pursuit of independent laboratory research; and, third, the collaboration with the clinical staff in research into the pathological physiology of patients with mental disease.

These three functions have all been represented in the work of the last decade. The first may be dismissed by the comment that we have elected to have a student-interne system, in which medical students serve as part-time internes doing the ordinary clinical laboratory work for the wards. While this system has its disadvantages in that the students are present at the hospital only in their "off" hours, it has the virtue of economy, and of training of students and the work is, in some respects, better done than it would be by a technician. A full discussion of this question will be found in previous reports.

As to the function of the laboratory in the prosecution of research, this necessarily depends upon the interest of the personnel. If the chief of the Laboratory is not a psychiatrist, the hospital material provides normal controls for his work on disease, or normal material for purely physiological or pharmacological experiments. Of course, if the junior chemist chooses to do research in pure chemistry, that also can be prosecuted. Under the present regime, the chief of the Laboratory has



also been Consultant in Medicine, and the work done here has been of the character indicated and having only a remote relation to psychiatry.

From the beginning, however, the third function has had considerable attention. The Chief of Staff has been very active in devising laboratory experiments on psychiatric patients, and certain other members of the staff have also done similar work. A reference to previous reports will demonstrate this point. It is my belief that this part of the work is the most important for the hospital, and the Director has constantly emphasized this to the staff. This year, Dr. Scott, a Commonwealth Fund fellow, is working on the hydrogenion content of the gastric juice of patients with functional gastric symptoms.

This whole discussion brings up the problem of the future orientation of the laboratory. It seems to me that if the Consultant in Medicine and Chief of the Laboratory be combined in the same individual, the laboratory will continue to be a somewhat separate unit from the general service of the hospital, and this is, perhaps, the most important criticism of the present regime. On the other hand, if the laboratory is headed by what one might call an experimental psychiatrist, the laboratory becomes divorced from the medical consultant service, which is also somewhat undesirable. A third possibility of heading the laboratory by a pure bio-chemist might tend to increase the separation, before-mentioned, between the laboratory as a service, and the other services of the hospital, and would also be open to the objection of the second alternative.

In the earlier part of the last decade, the Consultant in Medicine was not attached to the laboratory service and so we have had an opportunity of trying a divorce between these two functions, and it is my impression that the objections mentioned above were borne out by that. On the other hand, there is always the chance that it might be possible to stimulate the interest of the man in charge in psychiatric problems. If this could be accomplished without loss of touch with the non-psychiatric field of Internal Medicine, it would be ideal.

At the present time, in addition to the researches mentioned above which Dr. Scott is prosecuting, we are studying the effect of gelatin diets on the nitrogenous constituents of the blood. Gelatin is a particularly interesting protein, in that it is the only edible protein which does not contain sulphur and is, furthermore, lacking in the amino acids which give rise to toxic pressor amines in the body. In addition, Dr. d'Elseaux is prosecuting investigations into the acid-base balance and blood gasses of patients treated by inhalations of carbon dioxide and this will be reported more fully by the Department of Therapeutic Research.

We regret very much the retirement of Mrs. Emily Kubik, junior chemist, during the past year. She has been succeeded by Miss Ann G. Campbell. The staff of student internes for the past year has been Messrs. George Salter, George S. Krinsky Ernest Joy and Jacques Roseman.

Respectfully submitted,  
G. PHILIP GRABFIELD,  
*Chief of Biochemical Laboratory*

## REPORT OF THE PSYCHOLOGICAL LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

There has been during the past year no special change in the routine techniques of the Laboratory. The Kuhlmann-Anderson test introduced last year has been increasingly useful, the Laboratory having been fortunate in the presence on its staff during the summer of one of its authors, Dr. Rose G. Anderson. Planograph forms have done much to increase the efficiency of the routine testing. Work continues with the Rorschach test which, while very difficult to use properly, is gaining recognition as a technique of peculiar significance where objective methods are at their weakest. A long planned undertaking, revision of the Army Alpha test, has been actively prosecuted and thanks to the effective cooperation of the Laboratory personnel, and of the printing department at Gardner, is now within sight of successful completion.

Teaching policies continue in general as before, except that projects have become somewhat more organized and the work of students is accordingly more closely assigned and directed. Among the staff, Mr. Beck continues to specialize

upon the Rorschach test; Miss Ragsdale is undertaking supervision of work on the new Alpha; and Miss Jones has special interest in the study of the pre-school child.

The problem of publications has not moved nearer a solution but its solution has become less pressing. Publication has ceased to occupy so essential a role in the diffusion of information about one's work. Its place is being assumed by relatively selected conferences and their reports. The writer has participated in various gatherings of this nature, presenting a report on "Quantitative Methods of Personality Study" at Washington, under the auspices of the National Research Council, presiding at a session of the International Congress on Mental Hygiene at Washington, and presenting a report on "The Improvement of Psychometric Technique" under the auspices of the Brush Foundation at Cleveland. It is probable that this medium of diffusion will increase in importance relative to publication. A few of the studies contemplated in last year's report have been published and others will issue as circumstances permit.

The Laboratory was directly responsible for the psychological portion of the exhibit of the Department of Mental Diseases at the Tercentenary Exhibition of Governmental Activities. A grateful acknowledgement is made to the various laboratories of other institutions which contributed exhibits, and particularly to the laboratory of the Worcester State Hospital which assumed the major responsibility for the supervising personnel.

So far as practicable, effort is made to keep in touch with the activities of the other institution laboratories; there are several of these where work of not a little mutual interest is being carried on and much might be hoped for from a more effective interchange of ideas and practices than exists. There has been the usual cooperation in the matter of personnel selection.

The Laboratory continues its cooperation in Psychological Abstracts, the Psychological Index, and the Child Development Abstracts. Official relations to the Division of Psychology and Anthropology of the National Research Council, the Psychological Corporation, and the National Institute of Psychology, continue, substantially as heretofore. Some committee work is being carried on for the Social Science Research Council.

As to changes in the Laboratory staff, Mr. S. J. Beck continues as psychologist. Mrs. E. C. Whitman resigned as psychometrist on June 1, 1930, being succeeded for a period of three months by Dr. Rose G. Anderson. On September 1, 1930, Dr. Anderson resigned as psychometrist and Miss Albertine Ragsdale was appointed in her place. Mrs. Helen C. Bowie resigned as psychometrist on September 15, 1930, her position being assumed by Miss Viola Jones on that date.

Publications have been as follows:

- BECK, S. J. "The Rorschach Test and Personality Diagnosis. I. The Feeble-minded." *American Journal of Psychiatry*, Vol. 10, No. 1, July, 1930 19-52.
- WELLS, F. L. "Guidance of Normal Adolescents." *Monthly Bulletin of the Massachusetts Society for Mental Hygiene*, Vol. 8, No. 3, December, 1929.
- WELLS, F. L. "New Problems in Psychometrics." *Reprinted from the Proceedings of the Fifty-fourth Annual Session of the American Association for the Study of the Feeble-minded held at Washington, D. C., May 5-7, 1930.*
- WELLS, F. L. "A Short-Answer Examination in Psychiatry." *Journal of Genetic Psychology*, Vol. 37, June, 1930, 309-314.
- WELLS, F. L. "Effects of Instruction on Test Performance." *Journal of Genetic Psychology*, Vol. 37, June, 1930, 314-317.
- WELLS, F. L. "Comparative Reliability in Tests of a Motor Aptitude." *Journal of Genetic Psychology*, Vol. 37, June, 1930, 318-331.

Respectfully submitted,

F. L. WELLS,

Head Psychologist.

## REPORT OF NEUROPATHOLOGICAL LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

During the fiscal year ending November 30, 1930, the Assistant Pathologist to the Department of Mental Diseases has continued as Pathologist to the Hospital though the major portion of her time is taken up with the work of the Department, namely, the investigation of sudden deaths in the state hospitals of Massachusetts.

Thirty deaths have occurred in the Hospital in the past year. Sixteen of them have come to autopsy, making a percentage of 53. This is considerably larger than the percentage for several years previous and compares favorably with that of other hospitals.

Death was due in four cases to new growths — three of them brain tumors. In one of these the patient died five hours after admission from a hemorrhage in a glioma. This case was presented at a staff conference. Seven deaths were due to acute infections. There were two cases of tuberculosis, two of arteriosclerosis and one of hemorrhage from a duodenal ulcer.

Dr. J. M. Thomas, a former member of the staff, spent considerable time in the Laboratory learning histological technique as a foundation for work in neuropathology in Germany. A handicapped young woman was given at the request of one of the staff physicians about six months training in technique.

Dr. J. Kasanin has been given the use of a desk in the Pathologist's office because of lack of space in the other parts of the hospital.

The Laboratory cooperates as heretofore with the clinical staff of the hospital furnishing specimens for use in lectures to nurses.

There has been no Assistant Pathologist since the departure of Dr. M. E. Morse October 17, 1926.

The bacteriological interne, Aage E. Neilsen, reports the following work done for the hospital during the past year: Blood cultures, 26; spinal fluid cultures, 4; stool cultures, 1; miscellaneous cultures, 55; Widal tests, 4; throat smears for Vincents, 29; miscellaneous smears, 16.

Respectfully submitted,

MARJORIE FULSTOW,

*Pathologist, Department of Mental Diseases.*

## REPORT OF THE DEPARTMENT OF THERAPEUTIC RESEARCH

*To the Medical Director of the Boston Psychopathic Hospital:*

The study of the effects of the inhalation of high percentages of carbon dioxide and of the effects of anesthesia produced by barbituric acid derivatives, has been continued. This work has been commented on in a report of the preceding year. This year, in order to go further in this study, a bio-chemical laboratory has been thoroughly equipped for the analysis of blood gases, under the direction of Dr. Frank D'Elseaux, a Commonwealth Fund Fellow. Stated briefly, the problem that has been attacked is as follows:

It has been demonstrated that certain patients in stupors are brought out of the stupor for a short period of time by the inhalation of a high percentage of carbon dioxide. Similar effects are also obtained by the use of certain anesthetics such as sodium amytal. It is desirable to know the physiological mechanism whereby this change of status is accomplished. Therefore, a careful study of the arterial and venous blood is made. This study has not been carried to its conclusion, but as far as it has gone at the present time, it seems quite evident that when a high concentration of carbon dioxide is inhaled, an acute acidosis is produced, which, if continued long enough, leads to an acidotic coma, with a considerable fall in the hydrogen-ion concentration of the blood. Following this the blood comes to an equilibrium once more within the normal limits for the given individual. What happens as the result of the barbituric anesthesia has not yet been determined. The Fatigue Laboratory, of Harvard University, under the direction of Dr. Lawrence Henderson and Dr. David B. Dill, has been most helpful both in giving training to Dr. D'Elseaux and in offering assistance and advice at various times.

As is usually true with a new type of procedure, a number of problems have arisen which will need solution, and the work will be continued during the coming



year with Dr. D'Elseaux in charge of the laboratory, and Dr. M. R. Kaufman, who worked on the problem in the preceding year, will again be available for the continuance of this work. During the past year Dr. Kaufman has been abroad and continued his study on this problem, largely\* with animal experimentation, in the laboratory of Dr. Spiegel in Vienna, and has published a paper with Dr. Spiegel on the subject.

A preliminary report of this work, including that done by Dr. Kaufman, was given at the last meeting of the American Psychiatric Association, and will be published shortly in the American Journal of Psychiatry.

In a previous annual report mention was made of experiments in dehydration for the treatment of epilepsy. A continuation of these observations has also been made during this past year.

The treatment of neurosyphilis has been continued as in previous years. Dr. Arthur Berk, who was in charge of this problem, resigned in order to take another position, and was succeeded by Dr. Samuel Epstein. The procedures used have been the same as in the preceding year, that is, our major reliance has been on malaria and tryparsamide therapy. It may again be reported that more than thirty per cent of the parietic patients treated have made very satisfactory improvement, returning to the community, and it is further possible to report that there have been practically no relapses in the cases successfully treated in the preceding years.

Recently, there has elsewhere been developed a new method of developing artificial fevers by means of diathermy. This method seems to have a good many advantages in that it is possible to control better the rise in temperature and it is applicable to patients who do not take malaria. Due to the inability to secure funds for this work, it has not been possible to carry out this procedure at the Psychopathic hospital during this year. It therefore may not be out of place to call attention to the fact that in investigative work it is very inconvenient to be on a restricted budgetary allowance without flexibility, a budget that has to be prepared many months in advance of the time when the contemplated work it to be carried out. This means, of course, that one has not the opportunity to make modifications in one's work which conditions would seem to demand until a long period of time has elapsed. It is hoped in the succeeding year that it will be possible to utilize the diathermy method, but this will again depend upon the budgetary situation.

It is a satisfaction to report that the amount of work accomplished in the treatment of neurosyphilis has increased considerably during this year. There has been an opportunity to study the effect of the more modern methods of treatment on cases of juvenile neurosyphilis, a problem which has previously not been very well studied anywhere.

The following statistical summary indicates the amount of work done in the study and treatment of neurosyphilis:

*House Patients:*

New.....	185	Ref. from O.P.D.....	10	1st time this year ..	28	Total.....	223
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*Out-Patients:*

New.....	22	Ref. from O.P.D.....	52	1st time this year ..	163	Total.....	247
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*Relatives:*

New.....	189	1st time this year ..	8	Total .....	197
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Visits made by 347 persons.	3,527
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Number of individual cases continued for treatment and examination	673
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Treatments (O. P. D. and House)	3,099
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Arspenamine . . . . .	435	Neosarsphenamine . . . . .	129
Bismuth . . . . .	235	Theosulphate . . . . .	11
Intracistern . . . . .	4	Tryparsamide . . . . .	2,055
Intraspinal . . . . .	12	Typhoid vaccine . . . . .	155
Malaria . . . . .	83	Ventriculographies . . . . .	8
Mercury . . . . .	12		

Diagnostic lumbar punctures . . . . .	904
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Per cent of families followed who were examined . . . . .	58%
Per cent of relatives followed who were examined . . . . .	59.7%
Per cent of families examined showing evidence of syphilis . . . . .	28.5%
Per cent of relatives examined showing evidence of syphilis . . . . .	14.2%

Respectfully submitted,  
HARRY C. SOLOMON,  
*Chief of Therapeutic Research.*

## REPORT OF THE CHIEF EXECUTIVE OFFICER

*To the Medical Director of the Boston Psychopathic Hospital:*

There has been no important deviation from the established executive routine during the past year. Certain minor changes have been introduced here and there tending to simplify the work and make it more standardized. As usual the cooperation between the different departments has been excellent. It is becoming increasingly apparent year after year that the hospital can be administered most efficiently by making each employee, no matter what his or her position be, more familiar with the problems of administration and keeping before them at all times a picture of what an institution of this sort is intended to do and what the taxpayers of the Commonwealth are spending about one-quarter of a million dollars per annum to accomplish. In the interests of better cooperation it is believed that each department should know something of the problems of every other department. For instance an attempt has been made to stimulate some interest among the members of the medical staff relative to various executive problems so that each one will understand the reason why many requests cannot be granted. For the executive merely to tell a medical officer that a certain request cannot be granted and not explain the reason why often engenders a feeling of hostility which seriously interferes with cooperation. On the other hand the executive is encouraged to see things from the viewpoint of the medical officer. To these ends members of the medical staff often substitute for the executive physicians and the latter occasionally work up a case for presentation at staff in the same manner as the medical officers. The head of each department and to some extent each employee is encouraged to familiarize himself or herself with the budget. It is found that if each one knows the amount of money he is allowed for equipment, supplies and other purposes and is reminded each month of the amount expended and the unexpended balance it is much easier to carry on the hospital work in a smooth and efficient manner. Of course the Chief Executive Officer has to scrutinize carefully each expenditure and frequently does not approve an order. In all cases, however, where the order is of any importance the person requesting it is consulted and the matter is almost invariably explained or adjusted to everyone's satisfaction.

The upkeep of building presents a considerable executive problem. Minor repairs and renewals occur more rapidly than our small force of mechanics is able adequately to handle them. In our 1931 budget we have asked for much in the way of permanent repairs to the building and have been assured by the Department engineers that these matters will receive their approval. The new ice machine for which money was granted in 1930 has been bought and is now in process of installation. A decided improvement in the interior appearance and sanitation of the building has been brought about by the continued services of a painter. Many employees' rooms and other parts of the building, not apparent to the casual visitor, have been repainted for the first time in over ten years, changing many of the living quarters from an untidy and ill-kept appearance to one of cleanliness and attractiveness. There are several parts of the building now in need of new paint but at the present rate of progress it is probable that within two years at least the entire interior of the building will be brought up to a desired standard which it will be comparatively easy for one painter to maintain. During the past year asphalt flooring has been laid in all of the rooms for disturbed patients and new doors have replaced the original paneled doors in these rooms which had become badly battered and very unsightly. All of the protecting screen grills on the ward windows have been repainted and resecured. The old iron water mains in the sub-basements have been replaced with copper piping. Two new windows have been cut in wards 2

and 3 affording much better light and ventilation in two rooms. Physiotherapy equipment consisting of infra-red and ultraviolet lamps and diathermy apparatus has been installed. In the kitchen considerable equipment has been added including a Hobart power mixer.

The passage of over 50,000 cases through this hospital has left a great accumulation of case histories, pathologic specimens and other permanent records of inestimable value. These records, old and new, are referred to frequently in the course of research and in the making of abstracts for other hospitals, social agencies, insurance companies and the like. Filing space long ago became crowded and at present presents a serious problem. Space for new laboratory, diagnostic and therapeutic equipment is unavailable in the present structure. The increasing number of small children admitted makes the establishment of a children's ward highly desirable. The storeroom facilities for food and other supplies have been very unsatisfactory since this hospital became an independent unit. Unrequisitioned stores are now being kept in seven different rooms scattered about the building. These are a few of the reasons why more floor space is urgently needed and it would seem that the building of a moderate sized extension to the present hospital plant could not be longer postponed. Such an extension is included in the ten year building programme submitted in 1925. It was then proposed to extend the ward 5 wing diagonally backward toward the Riverway on property now comprising a part of the hospital lawn. The lay of land here would admirably adapt itself to such a project.

Inasmuch as the year covered in this report is the tenth year of this hospital's existence as an independent unit, the following brief statistical summary is submitted. During this ten year period there have been 18,367 admissions (exclusive of returns from visit, absence or escape.) A large majority of these admissions have been for temporary care under the provisions of Sec. 79, C. 123, G. L. The yearly average admission rate is therefore 1,836 ; the highest number admitted (2,006) being in 1922 and the lowest (1,593) being in 1926. During the other years there has been no great deviation from the mean. Just why admissions for 1922 should be so much in excess of those for 1926 is a matter that I am unable to explain but I venture the opinion that economic conditions, which were considerably better in 1926 than in 1922, may have had some bearing upon the matter. In the Out-Patient Department 10,416 new cases have been examined, a large percentage of them making several subsequent visits. The highest number of out-patients (1,135) were admitted in 1929 and the lowest number (885) were admitted in 1924. The general trend of admissions to the Out-Patient Department has been upward as might be expected. The total number of employees on the hospital payroll in 1921 was 114, 21 of these being physicians. The number of employees on the payroll has gradually increased to 147, 20 of these being physicians. The number of workers actually at the hospital, however, has increased considerably more than the number actually on the payroll. At the present time there are 23 persons not paid by the hospital who are doing scientific work here. The total expenditures for maintenance have averaged during the last decade \$222,567 per annum, amounting at the present time to slightly less than \$250,000 per annum and showing an increase of 21.6%. Of this amount personal service has been the greatest amounting to nearly two-thirds of the total expenditures and showing a ten year increase of 46.5%. The average annual expenditures for food have been \$31,715 with an increase of 41.5% since 1921. Medical and general care has cost on an average \$17,149 per annum with an increase of 33% since 1921. The cost for heat, light and power has averaged \$12,812 during this period and since 1923 has averaged approximately \$10,000 per annum. During the years 1921 and 1922 the cost of heat, light and power was more than double that of other years due to the great bituminous coal strike in operation at that time. Present costs for heat, light and power are 127% less than in 1921. All other items of expense have remained somewhat stationary during the last decade. The net weekly per capita cost has averaged \$46.23 being highest (\$56.10) during 1929 and lowest (\$39.00) during 1922. The average amount of reimbursement received for the care of patients has been \$14,244 per annum making an average weekly per capita reimbursement of less than \$3.19. From the above it will be seen that there has been little change in the annual turnover of patients during the last 10 years. Indeed there has been little change in the average



annual admission rate since the opening of this hospital as the Psychopathic Department of the Boston State Hospital in 1912. Expense of operation has increased greatly as might be expected. In spite of large expenditures it is seen that patients received care at an average individual cost to them of less than 46 cents per day. Surely an astonishingly low figure!

I wish to express at this time my sincere appreciation for the loyalty prevalent among the employees of the Boston Psychopathic Hospital and to thank the Medical Director for his continued kindness and consideration. To Dr. George M. Kline, Commissioner of the State Department of Mental Diseases, and to the Assistant Commissioner, Dr. Overholser, I am particularly indebted for wise and patient guidance.

Respectfully submitted,  
ARTHUR N. BALL,  
*Chief Executive Officer.*

## REPORT OF THE SOCIAL SERVICE DEPARTMENT

*To the Medical Director of the Boston Psychopathic Hospital:*

During the last year there was a full staff until April, 1930 when Miss Ethel Gleason was transferred to the Social Service Department at the Gardner State Colony. There were several candidates for the vacancy but due to a deficiency in budget it was not possible to fill the position immediately. In June, because of a special appropriation the position could have been filled but due to the giving of a competitive Civil Service examination no permanent appointments could be made until the examinations were corrected and a Civil Service list compiled. Accordingly, the position remained open until August, 1930 when Mrs. Rena Dewey, who had had experience at the Boston State Hospital, was appointed.

On August 1, 1930 Miss Villa West, clinic manager resigned to become social worker in the Neurological Department of the Boston City Hospital. Difficulty about filling her position arose as there was no one on the Civil Service list adequately qualified for the work of clinic manager. When the list was exhausted in October, 1930, Miss Annie Porter, a graduate of the Smith School of Social Work was appointed.

On September 30, 1930 Miss Ethel Goodwin resigned to go to the New York School of Social Work for one and one-half years of special training. Her position was immediately filled by Miss Clara Swain, a recent graduate of the Smith School of Social Work.

In September, Miss Charlotte Nicklin, resigned from the Syphilis Department. Her position was filled by Miss Ruth Epstein, a graduate of Boston University.

In addition to the regular staff, the four students, namely: Miss Grace Finn-Brown, Miss Barbara Ashenden, Miss Zitha Rosen and Miss Harriet Parsons, who had been studying at the Simmons School of Social Work and working part-time under the Laura Spelman Rockefeller Memorial Fund continued their investigations of the pre-psychotic personalities of cases of schizophrenia, manic-depressive psychoses and general paresis. As partial fulfillment of the requirements for the degree of Master of Science, three of these students submitted theses based on material which they had gathered during the year and one-half of study.

Miss Grace Finn-Brown wrote on "The Reliability of Information given by Mothers of Sixty Psychotic Patients". While her material did not prove conclusively that the mother is a reliable or non-reliable source of information it did suggest that the anamneses of ignorant unintelligent mothers are inclined to be unreliable, not only on subjective material but also on basic facts, such as date of birth, date of going to school, heredity, etc. Emotional mothers, although they may be biased in their attitude, are usually reliable sources of information.

Miss Barbara Ashenden wrote on "A Study of the Accuracy of the Estimation by Social Workers of the Pre-psychotic Personality Traits in Mental Patients". Her thesis was of great interest to those who believe in approaching scientifically the matter of gathering information. In the past there has been little attempt to evaluate the effect of the worker upon the information obtained. Prejudices, backgrounds, points of view, have colored the material, it has been known. On nine cases, Miss Ashenden had another social worker listen to the interview and record

independently her impression of the material given, *i.e.*, as to whether the patient was extremely jealous or sensitive, or only slightly so. On forty-six items of personality there were disagreements in about twenty-eight percent of the instances. These were due chiefly to differences between workers in interpretation of definitions, in willingness to accept informants' statements, and in agreement as to what constitutes adequate information.

Miss Zitha Rosen presented a thesis on "The Statistical Study of Pre-psychotic Personality Traits". She reviewed one hundred cases to see if any significant association of traits occurred for the fifty cases diagnosed schizophrenia as compared with a control group. While the number of the cases was too small for any definite statements she did find that there appear to be some consistent, if not significant, associations between the cases of schizophrenia and those traits which have been claimed to belong to them, such as day-dreaming, sensitivity, shyness, etc.

Miss Parsons did not submit a thesis but she is writing an article on the effect on other members of the family of having one or two members psychotic and is discussing what the social worker can do to prevent or alleviate the feeling of depression and fatalism that often occurs.

In addition to the four part-time Simmons students there were two full-time Master students, Miss Elizabeth Marvel and Mrs. Aino Rissanen who also had to write theses as partial fulfillment of the requirements for the degree of Master of Science.

Miss Marvel submitted a critical study of fifty cases of children with reading disabilities known either to the Out-Patient Department of the Boston Psychopathic Hospital or the Brookline School Survey. Miss Marvel was interested to find out whether these children with special difficulties were recognized as having academic disabilities or were seen as problem children or children with mental deficiency. She found that although the median intelligence quotient was ninety-three percent the majority were called retarded and were at least one year behind in grade placement. The reading level was often two years behind. The children were listed as dull, indifferent, would not concentrate, or over-active, a source of annoyance to the teacher, or truants.

Mrs. Rissanen made a study of the cases of sex offenders admitted to the Boston Psychopathic Hospital during the year 1929 from six courts in and near Boston. Out of 1938 cases arrested for sex offense only 34 were sent to the hospital for examination. Of these, nine were found to be insane and committable but only seven were sent on to mental hospitals by the court, the other two being fined or placed on probation. Five others were found to be feeble-minded, three were sent to the State Farm, one to a hospital for the mentally sick and the other to the Reformatory for Women. In addition to studying disposition of the cases, Mrs. Rissanen made a brief study of the personalities of the patients.

From September, 1929 until the first of June, 1930, Miss Louise Veo and Miss Rose Goldsmith, students from the Smith School of Social Work carried on their field work under the direction of the department. As partial fulfillment of their training, they also wrote theses. Miss Veo presented material on the prognostication of mental disease in children. She reviewed eight cases which had been studied at the Judge Baker Foundation from three to five years before admission to the Boston Psychopathic Hospital. In some cases an early personality involvement was noted but in no case was there a clear-cut diagnosis of beginning mental trouble. The material presented a very interesting study of personality traits in the pre-psychotic stages.

Miss Goldsmith made a study of sixty-three cases sent to the Out-Patient Department of the hospital during the year 1929 by the Boston Family Welfare Society and the Federated Jewish Charities in order to ascertain what benefits were received from coming to the clinic. She found that in many instances the cases were referred chiefly for psychological rating and vocational guidance. Through long contact with the families the agency workers felt that they had a good comprehension of the personality make-up of the different members of the family group which they wished confirmed by the judgment of an expert in personality problems, but that they did not expect to receive detailed analytical accounts from the short examina-



tions possible in a busy clinic. In several instances they would have liked more concrete advice, especially as to the proper method of handling a psychoneurotic individual who would not come to the clinic after the first visit.

The general routine of the department has been carried on practically as in other years, although there has been some attempt made to have "treatment conferences". In a hospital where there is a frequent change of personal and where many of the physicians have had little instruction in psychiatry before coming to the hospital it is difficult to plan for careful supervision on the part of psychiatrists of students in social work. In order to prevent the social worker from feeling that she can work independently efforts are made to arrange as many conferences as possible with the physician as to the proper method of dealing with the patient when the latter is not directly under the care of the psychiatrist, *i.e.*, when he returns to the community or sees the doctor only occasionally. Treatment conferences to which come the doctor in charge of the case, the social worker in charge of the case, the chief of service, male or female, on which the patient belongs, the chief of social service and Dr. Bowman, the medical director, have been arranged in several instances with such good results that more will be planned for the coming year.

In this transition period where there is no clear-cut idea as to the place of psychiatric social work in the fields of psychiatry and social work and no definite decision as to whether psychiatric social work is a specialty or not it is interesting to study carefully cases which have been handled by psychiatric social workers to see what has been the role of the worker and how different her approach has been from that of a worker not specially trained in the psychiatric field.

The following are examples of the case work which members of the Social Service Department have been doing this year.

A.G., a boy of 11, was brought to the Out-Patient Department because of marked temper tantrums and an extreme fear of the dark and staircases since the age of 7. In addition to being seen in the clinic several times by the psychiatrist, the patient and his family were visited at home many times by the social worker. Not only did she carry out the psychiatrist's recommendation that he be placed away from the surroundings with which he had bad associations by arranging a summer at camp and the joining of a boy's club but she also explained to the family time and time again that even though they still should accompany him up and down the stairway until this fear left, they should do this without making any special comment about it. Many explanations were given to the family as to why he had this fear and how it had become a habit and that their co-operation was needed in helping him recover. He himself was told that as long as he was the older brother and could be looked up to that it was his responsibility to keep the smaller children from having fears.

J.C., a man of 45, had been admitted to the hospital because he was extremely depressed due to unemployment and had compulsive feelings which suggested murder, robbery and suicide. At the end of four days he was discharged against advice at the request of his wife. On analysis it was discovered that the patient was an immigrant Irishman of low intelligence who three years before had been transplanted from the simplicity of country life to the complex environment of a city. He had always lived in a primitive condition, had never traveled and was unused to the complications of a competitive existence. At first the social worker spent her efforts in an attempt to adjust the patient to a simple job where he would not constantly be subjected to failures and competition. He had built up an antagonism to employers in general and had rationalized his failures by placing the blame on others. His good qualities were stressed and many comments were made about the little things that he did well. At first, little attention was paid to anyone but the patient, the feeling being that it was better to attempt his readjustment as an individual even though the family had still to be aided by a family welfare society. Later, more attention was paid to his wife and children. The latter had been a very successful domestic, well thought of by her employers. After marriage she lost courage and showed no efficiency in the care of her own household. An attempt was made to give her a degree of satisfaction in keeping her husband successful on his own level and preventing any more breakdowns. Workers who had been in charge of the case previously had felt that they must return the family to

Ireland in order to gain happiness for the patient but the psychiatric social worker discovered that the patient would regard such a move as a sign of failure on his part. Other workers were disturbed because he was not earning enough to entirely support the family, not seeming to appreciate that he was capable of only simple manual work which would never pay enough to entirely support his wife and three children.

E.B., was brought to the Out-Patient Department because at the age of 13 she had displayed a sudden lack of interest in school subjects and in her music lessons, was pilfering small amounts from the church funds and was getting along very poorly with her younger brothers and sisters. On psychological test she was found to have an Intelligence Quotient of 91. The mother had hoped that the girl would be able to go to college and was constantly urging her to improve her school grades. On analysis it was discovered that the mother had always wanted to go to college herself, not having been able to do so she had planned on having her children go and accordingly was much upset when her oldest child, the patient, began to do poorly in school. She immediately began to compare her unfavorably with the next daughter who is considered very bright. Throughout a year and a half of contact with the family much time and effort was spent in explaining to the mother that she was projecting her own emotional problems onto her children. Arrangements were also made for patient to have good musical instruction, for her to get away from the home on vacation and to obtain recreation outside of the home. Since contact with clinic, patient has taken on many of the household duties for which she is receiving praise from the mother. She responds to flattery and it has been the task of the social worker to make her feel that she occupies as important a position in the school and the home as her younger sister. The father of the family was enlisted in the campaign for working out the harmonious relationships of the entire group.

Throughout the year various members of the department have given lectures to Family Welfare Societies, parent-teacher associations and mothers' clubs regarding various phases of psychiatric social work. Recently a survey was begun of the Out-Patient cases handled in 1928 to see what has happened since the examination at the clinic. It is hoped that by next year some information will be at hand regarding the value of even one visit to the clinic by a patient. Some of the patients who come for examination seem very ill mentally but do not return. The survey should show whether these people became worse and had to be admitted to some hospital or whether they gained such an appreciation of their condition that benefit was received at once.

Respectfully submitted,

ESTHER C. COOK,

*Head Social Worker.*

## SOCIAL SERVICE STATISTICS

### I. Numerical summary:

	Male		Female	
	<i>Children</i>	<i>Adults</i>	<i>Children</i>	<i>Adults</i>
New cases . . . . .	209	294	188	241
Continued from previous year . . . . .	47	70	42	54
Continued to following year . . . . .	18	33	17	26

### II. Sources of cases:

Boston Psychopathic Hospital . . . . .	373
Out-patient . . . . .	326
Research . . . . .	139
School survey . . . . .	94

### III. Analysis of work:

On June 1, 1930 at the suggestion of the Director of Social Work the statistical outline was changed; accordingly, under "Analysis of work" the figures are given in two columns, including first from October, 1929 to May 31, 1930 and secondly, from June 1, 1930 to September 30, 1930.

#### (1) House cases:

Investigation:

Court cases . . . . .	105
Outside history because no informant came to hospital . . . . .	83
Additional social information, <i>i.e.</i> , court records, employment, neighbor, etc. . . . .	113
After-care visiting:	
Doing well . . . . .	59
Not improved . . . . .	20
Readmitted to hospital . . . . .	6
Case work, including adjustment in industry, placement in home, financial assistance, etc. . . . .	73
Out-patient cases:	
Investigation:	
Court cases . . . . .	18
History . . . . .	37
Slight service, including reference to agencies, consulting with agencies, personal services, etc. . . . .	155
Case work . . . . .	60
(2)	
Number of histories . . . . .	53
Number of investigations . . . . .	125
Number of visits relative to patients in community . . . . .	174
Number of visits relative to patients in hospital . . . . .	107
Placements by Social Service:	
1. Number placed . . . . .	9
2. Unable to place . . . . .	3
IV. Outstanding social problems:	
Diseases:	
Mental . . . . .	308
Physical . . . . .	78
Personality problems, including temperament, vacillating interests, instability, etc. . . . .	227
Sex problems . . . . .	66
Legal problems, including larceny, assault, forgery, etc. . . . .	112
Environmental:	
Financial difficulties . . . . .	87
Employment . . . . .	110
Marital difficulties . . . . .	90
Unsuitable surroundings, broken home, friction in the home, inadequate physical surroundings, immoral parents . . . . .	154
V. Miscellaneous:	
Expense account . . . . .	\$580.01

### SOCIAL SERVICE STAFF

*Head Social Worker:* Esther C. Cook, July 1, 1928.

*Assistants in Social Service:* Villa T. West, June 11, 1928 — resigned July 31, 1930; Ethel A. Gleason, June 11, 28 — resigned, April 26, 1930; Ethel Goodwin, July 8, 1928 — resigned, September 27, 1930; Anne G. Beck, June 25, 1929; Rena Dewey, August 25, 1930; Annie Porter, October 13, 1930; Clara Swain, October 1, 1930.

*Syphilis Follow-up Workers:* Charlotte Nicklin, August 5, 1929 — resigned August 30, 1930; Ruth Epstein, September 30, 1930.

### REPORT OF THE PRINCIPAL OF THE SCHOOL OF NURSING

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith present the annual report of the Nursing Department for the year ending November 30, 1930.

*On Nursing Service.* Principal of the school of nursing, 1; assistant principal of the school of nursing, 1; nurse instructor (full time), 1; female supervisor (night), 1; male supervisor (day), 1; assistant supervisors, 2; head nurse, operating room,



1; head nurses, wards, 6; assistant head nurses, 2; student nurses, 14; hydrotherapists, 2; female attendants, 8; male attendants, 14.

*Head Nurses resigned:* Miss Abbie Urquhart, Miss Dorothy Allen and Miss Margaret McKay.

*Head Nurses appointed:* Miss Helen Brougham, a graduate of the New England Deaconess Hospital, Miss Margaret de Grouchev, a graduate of the Winchester Hospital and Miss Muriel Kew, a graduate of Newton Hospital. These nurses have taken the affiliated course here.

During the year we received fifty-four student nurses and one graduate nurse for the three months course in psychiatric nursing.

*Special Nursing:* Number of special nurses, 12. Total of number of weeks in wards, 26.

*Hydrotherapy:* Tonic baths, number of patients, 251; foot bath, 724; salt glows, 887; electric light baths, 458; sitz baths, 111; saline baths, 118; hot and cold applications, to spine, 74; wet sheet packs (as preparatory treatment), 21; baking and massage, 26; tub shampoos, 575; head shampoos, 442; rain douches, 441; scotch douches, 74; Continuous baths: Number of patients, 462; number of baths, 2,422; number of hours, 15, 374. Wet sheet packs: Number of patients, 57; number of packs, 175; number of hours, 522.

Instruction in wet sheet packs, tonic baths and continuous baths was given to 56 nurses, number of lessons, 360; number of hours, 374. Instruction in wet sheet packs and continuous baths was given to 28 male attendants, number of lessons, 91; number of hours, 161.

The routine work in the nursing department has varied little from that of the previous year. We are invariably meeting with difficult nursing problems and in order to give the excited, physically ill patients, including many post partum cases, proper nursing care, we have been obliged to place most of our student nurses on the female receiving ward, thus leaving a shortage of nurses on the other wards. We need at least four more student nurses, but since we have no means of housing them, we cannot take them on the service.

Affiliation with the general hospitals is continuously proving successful. The manner in which the student nurses adapt themselves to this type of nursing is very satisfactory. Their wholesome attitude towards the work is stimulating and beneficial and contributes a great deal in bringing about satisfactory results in the treatment of our patients.

The Winchester Hospital is continuing to send us four student nurses instead of two every three months, which is a gratifying evidence of the value the general hospital is placing in our educational course in mental nursing.

The doctors' efforts have been untiring in contributing to our lecture course, and I wish to thank them on behalf of the nursing service for their splendid work which has been so satisfactory and helped to make our affiliative course during the past year so successful.

Miss Sigrid Bradgon, a student nurse from the Winchester Hospital, whose affiliation here was interrupted due to illness, was sent back to her own hospital where she died of spinal meningitis. During her affiliation here her work was of the highest type; such women are indeed a loss to the nursing world.

Our graduate nurses have shown a greater interest in establishing a more pleasant environment for our patients. Since the wards have been repainted, they have, with the aid of the Occupational Therapy Department, gotten many pillows, tapestries, and window draperies of colorful designs, which tend to give our wards a more homelike appearance.

I wish to thank the medical and executive staffs for their encouragement and support, also the members of the other departments for their cooperation during the year.

Respectfully submitted,

MARY FITZGERALD, R.N.,

*Principal of the School of Nursing.*



## REPORT OF THE DEPARTMENT OF OCCUPATIONAL THERAPY

*To the Medical Director of the Boston Psychopathic Hospital:*

During the year this department has furnished occupational therapy for all house patients who are able to be brought to the work rooms. This usually comprises about one half of the resident population. Work is done on the wards as the personnel permits. From the point of view of occupational therapy there is an important difference between the cases that remain in the hospital for ten days or less and those that stay for longer periods. For the former group we feel that we have accomplished our purpose if we can make them feel that the hospital expects them to busy themselves about normal interests and to react to the situation in which they find themselves with something approaching normal behavior. Our contact with these patients should help to establish their confidence in the activities of the institution.

However, it is with the group that remains for a longer period that we are able to make some effort to gauge the results of our work. In attempting to estimate the importance of occupational therapy we find it difficult to separate any one element in the treatment of a patient and to make any accurate appraisal of the result. In the majority of cases the hospital situation appears to act upon the patient as a unit. While we should like to be able to isolate the results of our work and to say that this occupation will produce this effect upon a patient of a given type we do not feel that at this stage such a formulation is possible. On the contrary we find that our work cannot be estimated as a detached therapeutic agent. Very often the attitude of the patient toward occupational therapy is strongly influenced by his attitude toward the physician or by some situation on the ward. In the same way his interest in occupational therapy should carry over into his attitude towards the hospital as a whole.

In many cases the value of the work is obvious to the patient himself. He recognizes it as a training in concentration and as a means of maintaining his interest in things about him. He accepts the work as a form of treatment. In other cases he must be urged to activity of some sort. He may undertake a project because he wishes to keep the thing to be made for himself or for some friend. He may even work to please the instructor or just because it seems to be expected of him. The details of one or two cases may show how our work is carried on and how closely we come in contact with the patient:

I.R. A young man of 23 comes into the department with a history of difficulty in making satisfactory adjustments both social and occupational, and with a gradual deterioration in his behavior.

November 18, 1929. On entry to the department the patient seems retarded in his activities, he moves slowly, talks little and presents a dull and listless appearance. The therapist talks to patient and gets him to sit down in the work room. Patient is allowed time to become adjusted to the new surroundings, and then a waste basket which is partly done is given him. A finished model is shown, and it is suggested that he complete the new one. He accepts the work. The process is explained and the patient learns a simple weave. He works slowly, and at first makes many mistakes, working only a short while at a time. Occasionally he breaks down and cries.

December 2, 1929. Patient works more readily, makes few mistakes and moves with fair rapidity. He still seems to talk with difficulty. He goes without things he wishes to work with rather than ask for them, and practically never speaks on his own initiative. He will answer questions fairly readily. Patient has finished his waste basket and undertakes caning a chair. He usually appears somewhat anxious and depressed; it is noticed that he occasionally smiles to himself without apparent cause.

January 6, 1930. Patient becomes more flexible in his work. Therapist is able to give him work of varying sorts. He is placed with a group of men engaged in the project of printing a calendar. Patient is employed on such processes as cutting paper for printing, counting prints, running the printing press, etc. Work is changed frequently because therapist wishes to give him something which will require concentration, and will train him in adapting to varying requirements. It was found impossible to make too great demands upon his intelligence in the

handling of material. Patient begins to talk more freely to therapist. When asked what he was thinking about when he was seen smiling while cutting paper, he said he was thinking that "maybe it might be money." However he stated the correct use for the paper when questioned. When asked why he did not talk more freely to others he said that it took time to get acquainted, and that he could talk to therapist because he had been in the department long enough to get to know her. At this time patient worked steadily throughout the hour with fair reliability.

After about three months the patient was transferred to another state hospital. In this case, while there was nothing approaching cure, still the patient did show improvement in the level of his work, and also in his relationship to those with whom he came into contact.

Another case with a different outcome is as follows:

T.R. A man of thirty-seven, a mechanical worker of fair grade, breaks down into a rather acute condition of confusion, showing many distorted ideas.

November 20, 1929. When brought to the department the patient appears agitated and confused. He is given a dish-mop handle to sandpaper. After a few minutes he takes work to the sink and soaks wood and sandpaper in water. Then he picks up a shellac brush another patient is using and tries to shellac the wet wood. At times he insists on keeping the thumb and forefinger of his right hand tightly closed, refusing to open his hand. When asked the reason he says, "must not let go." He remains in the department the first day for only a short time, then is returned to the ward.

December 15, 1929. Patient comes to department regularly and wishes to be busy all the time. He is engaged in a variety of simple occupations which require some concentration upon technique. He canes a chair, is interested in making a work-basket for his wife, and does weaving upon a rug loom. Patient is slow in his work, and seems to have difficulty in concentrating on what he is doing. Seems very conscientious and anxious to please, worries lest he is not doing what is expected of him. Wishes for minute directions and takes an unusually submissive attitude. Asks for permission when he wishes to leave the room, and repeatedly says, "I'll do what you say, you know best."

March 30, 1930. Patient works more freely and with fewer signs of anxiety. Patient is doing woodwork, using material from packing boxes to make a telephone stand. Also operates the hand printing press. Learns more readily and uses better judgment. Still shows some residue from his former condition, is slow, perplexed by anything he does not quite understand, and easily fatigued. On the whole he shows considerable improvement in his general attitude and in his ability to deal with concrete material.

Patient is discharged much improved, goes back to his family and is able to carry on at apparently as high a level as before his illness. This man is described as naturally energetic, ambitious, and never happy except when he is doing something. For a patient of this type occupational provision of some sort would seem to be a factor of considerable importance.

During about half of the year we have had with us students from the Boston School of Occupational Therapy for varying periods of training. We have also continued to receive into the department for two weeks training the student nurses who are affiliated with the hospital. During this time they have a chance to see the workings of the department, as well as to learn something of one or two crafts which may be of use to them in cases where occupational work is indicated. The recreational program has consisted of dances which have been attended by a large number of the hospital population both patients and employees. We have also had a good number of parties for the patients in the sunparlor of the department at which we have made use of moving pictures and community games. The addition of a moving picture machine to the equipment would greatly extend our recreational opportunities. The department oversees the distribution of magazines to the various wards. In this work we are greatly aided by contributions from the Lend-a-hand Society of Boston.

An exhibition of work was recently sent to the annual convention of the Massachusetts Occupational Association, and an article was contributed by the chief

therapist to the November Bulletin of this society in a symposium upon "Interior Decorating in the Mental Hospital as a Therapeutic Measure."

A loom has recently been purchased for the department, and the sunparlor has been redecorated during the year.

The personnel of the department is unchanged, Miss Dorothy Hayden having continued her efficient services.

The statistics of the Department are as follows:

Attendance — Women — Average attendance, 20. Total enrollment, 606.

Attendance — Men — Average attendance, 19. Total enrollment, 624.

Articles made, 1,950. Forms printed, 22,650.

Respectfully submitted,

ETHELWYN F. HUMPHREY,

Chief Occupational Therapist.

## PUBLICATIONS FROM THE CLINICAL SERVICE AND LABORATORIES

BECK, S. J. — "The Rorschach Test and Personality Diagnosis. I. The Feeble-minded." *American Journal of Psychiatry*, Vol. 10, No. 1, July 1930, 19-52.

CAMPBELL, C. MACFIE — "Psychiatry and the Medical Student." *Psychiatric Quarterly*, January 1930.

CAMPBELL, C. MACFIE — "Hallucinations; Their Nature and Significance." *American Journal of Psychiatry*, Vol. 9, No. 4, January 1930.

CAMPBELL, C. MACFIE — "Some Errors in the Diagnosis of Schizophrenia." *Archives of Neurology and Psychiatry*, Vol. 24, No. 1, July 1930.

CAMPBELL, C. MACFIE — "The Work of the Psychopathic Hospital." *International Congress of Mental Hygiene*, May 5-10, 1930.

KAUFMAN, M. RALPH AND SPIEGEL, E. A. — "Experimentelle Analyse der Beeinflussung Katatoner Zustände durch Einatmen von Kohlensäure-Sauerstoffmischungen." *Ztschr. f. d. ges. Neur. u. Psychiatr.*, Vol. 1, No. 2.

WELLS, F. L. — "Guidance of Normal Adolescents." *Monthly Bulletin of the Massachusetts Society for Mental Hygiene*, Vol. 8, No. 3, December 1929.

WELLS, F. L. — "New Problems in Psychometrics." *Reprinted from the Proceedings of the Fifty-fourth Annual Session of the American Association for the Study of the Feeble-minded held at Washington, D. C., May 5-7, 1930.*

WELLS, F. L. — "A Short-Answer Examination in Psychiatry." *Journal of Genetic Psychology*, Vol. 37, June 1930, 309-314.

WELLS, F. L. — "Effects of Instruction on Test Performance." *Journal of Genetic Psychology*, Vol. 37, June 1930, 314-317.

WELLS, F. L. — "Comparative Reliability in Tests of a Motor Aptitude." *Journal of Genetic Psychology*, Vol. 37, June 1930. 318-331.

## VALUATION

November 30, 1930

REAL ESTATE		
Land, 2 acres		\$59,300.00
Buildings		553,568.68
		<hr/>
PERSONAL PROPERTY		\$612,868.68
Travel, transportation and office expenses		\$3,648.44
Food		3,095.27
Clothing and materials		1,634.75
Furnishings and household supplies		23,170.96
Medical and general care		20,460.08
Heat, light and power		734.50
Farm		— .00
Garage, stables and grounds		136.25
Repairs		1,273.68
		<hr/>
SUMMARY		\$54,153.93
Real estate		\$612,868.68
Personal property		54,153.93
		<hr/>
		\$667,022.61



FINANCIAL REPORT

To the Department of Mental Diseases:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1930.

CASH ACCOUNT		
Receipts		
<i>Income</i>		
BOARD OF PATIENTS.		\$11,667.07
Reimbursements		1,464.58
		<u>\$13,131.65</u>
Personal Services:		
Reimbursement from Board of Retirement		109.00
Sales:		
Food		118.15
Repairs, ordinary		16.19
Arts and crafts, sales		29.99
Total sales		<u>\$164.33</u>
Miscellaneous:		
Interest on bank balances		\$228.21
Rent		1,800.00
Sundries		198.00
		<u>\$2,226.21</u>
Total Income		<u>\$15,631.19</u>

MAINTENANCE		
Balance from previous year, brought forward		\$4,314.38
Appropriations, current year		255,850.00
		<u>\$260,164.38</u>
Total		
Expenses (as analyzed below)		248,856.79
		<u>\$11,307.59</u>
Balance reverting to Treasury of Commonwealth		

Analysis of Expenses		
Personal services		\$161,455.61
Religious instruction		480.00
Travel, transportation and office expenses		5,698.10
Food		36,411.44
Clothing and material		1,292.03
Furnishings and household supplies		4,863.54
Medical and general care		18,550.00
Heat, light and power		11,001.65
Garage, stable and grounds		292.59
Repairs ordinary		3,992.83
Repairs and renewals		4,819.00
		<u>\$248,856.79</u>
Total expenses for Maintenance		

SPECIAL APPROPRIATIONS		
Balance December 1, 1929		\$169.25
Appropriations for current year		
Total		<u>\$169.25</u>
Expended during the year (see statement below)		\$155.97
Reverting to Treasury of Commonwealth		155.97
		<u>\$13.28</u>
Balance November 30, 1930, carried to next year		

OBJECT	Act or Resolve	Whole Amount	Expended During Fiscal Yr.	Total Expended to Date	Balance at End of Year
X-ray Equipment.	Chap. 127, Sec. 5, Acts of 1928	\$5,800.00	\$155.97	\$5,786.72	\$13.28

PER CAPITA  
During the year the average number of inmates has been, 86.40.  
Total cost of maintenance, \$248,856.79.  
Equal to a weekly per capita cost of \$55.39  
Receipts from sales, \$164.33.  
Equal to a weekly per capita of \$.0365.  
All other institution receipts \$15,466.86.  
Equal to a weekly per capita of \$3.4425.  
Net weekly per capita \$51.91.

Respectfully submitted,  
ELIZABETH LIBBER SHORE,  
Treasurer.







TABLE 4. *Nativity of First Admissions and of Parents of First Admissions.*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States . . . . .	69	58	127	36	31	28	21	25	19
Australia . . . . .	—	—	—	—	—	—	—	—	—
Canada <sup>1</sup> . . . . .	5	4	9	8	10	6	11	12	11
China . . . . .	1	—	1	1	1	1	—	—	—
England . . . . .	2	—	2	2	4	2	2	2	1
France . . . . .	—	—	—	1	—	—	—	—	—
Germany . . . . .	—	—	—	1	—	—	—	—	—
Greece . . . . .	1	—	1	1	1	1	—	—	—
Ireland . . . . .	4	4	8	20	25	20	23	18	16
Italy . . . . .	4	2	6	7	7	7	4	4	4
Jugoslavia . . . . .	—	—	—	—	—	—	—	1	—
Mexico . . . . .	—	—	—	1	—	—	—	—	—
Norway . . . . .	—	1	1	—	1	—	1	—	—
Portugal . . . . .	—	1	1	2	2	2	1	1	1
Russia . . . . .	3	1	4	3	3	3	6	6	6
Scotland . . . . .	1	1	2	2	2	1	—	—	—
Wales . . . . .	—	—	—	—	—	—	—	1	—
Other countries . . . . .	2	2	4	3	3	3	1	1	1
Unascertained . . . . .	—	—	—	3	2	2	4	3	3
Total . . . . .	92	74	166	92	92	76	74	74	62

<sup>1</sup>Includes Newfoundland.

TABLE 4-A. *Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born.*

AGE GROUPS	Aggregate	NATIVE BORN										FOREIGN BORN									
		PARENTAGE										Total	TIME IN UNITED STATES BEFORE ADMISSION								
		Native		Foreign		Mixed		Unascertained	Under 5 years	5-9 years	10-14 years		15 years and over								
		M.	F.	T.	M.	F.	T.							M.	F.	T.					
Under 15 years . . . . .	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.					
15-19 years . . . . .	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2					
20-24 years . . . . .	7 11 18	6 9 15	7 10 17	7 10 17	7 10 17	7 10 17	7 10 17	7 10 17	7 10 17	7 10 17	7 10 17	7 10 17	7 10 17	7 10 17	7 10 17	7 10 17					
25-29 years . . . . .	16 10 26	15 9 24	16 10 26	16 10 26	16 10 26	16 10 26	16 10 26	16 10 26	16 10 26	16 10 26	16 10 26	16 10 26	16 10 26	16 10 26	16 10 26	16 10 26					
30-34 years . . . . .	9 12 21	7 11 18	9 12 21	9 12 21	9 12 21	9 12 21	9 12 21	9 12 21	9 12 21	9 12 21	9 12 21	9 12 21	9 12 21	9 12 21	9 12 21	9 12 21					
35-39 years . . . . .	4 7 11	3 5 8	4 7 11	4 7 11	4 7 11	4 7 11	4 7 11	4 7 11	4 7 11	4 7 11	4 7 11	4 7 11	4 7 11	4 7 11	4 7 11	4 7 11					
40-44 years . . . . .	16 7 23	15 7 22	16 7 23	16 7 23	16 7 23	16 7 23	16 7 23	16 7 23	16 7 23	16 7 23	16 7 23	16 7 23	16 7 23	16 7 23	16 7 23	16 7 23					
45-49 years . . . . .	11 3 14	10 3 13	11 3 14	11 3 14	11 3 14	11 3 14	11 3 14	11 3 14	11 3 14	11 3 14	11 3 14	11 3 14	11 3 14	11 3 14	11 3 14	11 3 14					
50-54 years . . . . .	15 6 21	14 6 20	15 6 21	15 6 21	15 6 21	15 6 21	15 6 21	15 6 21	15 6 21	15 6 21	15 6 21	15 6 21	15 6 21	15 6 21	15 6 21	15 6 21					
55-59 years . . . . .	8 9 17	8 8 16	8 9 17	8 9 17	8 9 17	8 9 17	8 9 17	8 9 17	8 9 17	8 9 17	8 9 17	8 9 17	8 9 17	8 9 17	8 9 17	8 9 17					
60-64 years . . . . .	4 8 12	4 7 11	4 8 12	4 8 12	4 8 12	4 8 12	4 8 12	4 8 12	4 8 12	4 8 12	4 8 12	4 8 12	4 8 12	4 8 12	4 8 12	4 8 12					
65-69 years . . . . .	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2					
70 years and over . . . . .	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2					
Unascertained . . . . .	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2					
Total . . . . .	92 74 166	69 58 127	92 74 166	28 19 47	25 26 51	14 11 25	2 2 4	23 16 39	2 2 4	1 1 2	3 1 4	17 12 29									



TABLE 5. *Citizenship of First Admissions.*

	Males	Females	Total
Citizens by birth	69	58	127
Citizens by naturalization	11	7	18
Aliens	10	9	19
Citizenship unascertained	2	—	2
Total	92	74	166

TABLE 6. *Psychoses of First Admissions.*

PSYCHOSES	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses				2	—	2
2. Senile psychoses				—	—	—
3. Psychoses with cerebral arteriosclerosis				1	—	1
4. General paralysis				41	1	42
5. Psychoses with cerebral syphilis				2	2	2
6. Psychoses with Huntington's chorea				—	—	—
7. Psychoses with brain tumor				—	2	2
8. Psychoses with other brain or nervous diseases, total				1	4	5
Tabes dorsalis	—	1	1	—	—	—
Other diseases	1	3	4	—	—	—
9. Alcoholic psychoses total				5	—	5
Delirium tremens	1	—	1	—	—	—
Acute hallucinosis	2	—	2	—	—	—
Other types, acute or chronic	2	—	2	—	—	—
10. Psychoses due to drugs and other exogenous toxins, total				5	2	7
Opium (and derivatives), cocaine, bromides, chloral, etc. alone or combined	4	2	6	—	—	—
Gases	1	—	1	—	—	—
11. Psychoses with pellagra				—	—	—
12. Psychoses with other somatic diseases, total				1	13	14
Post-infectious psychosis	—	1	1	—	—	—
Exhaustion delirium	1	—	1	—	—	—
Cardio-renal diseases	—	1	1	—	—	—
Other diseases or conditions	—	11	11	—	—	—
13. Manic-depressive psychoses, total				7	14	21
Manic type	1	5	6	—	—	—
Depressive type	3	7	10	—	—	—
Other types	3	2	5	—	—	—
14. Involution melancholia	—	—	—	1	4	5
15. Dementia praecox (schizophrenia)	—	—	—	18	14	32
16. Paranoia and paranoid conditions	—	—	—	1	4	5
17. Epileptic psychoses	—	—	—	—	—	—
18. Psychoneuroses and neuroses, total				—	1	1
Other types	—	1	1	—	—	—
19. Psychoses with psychopathic personality				—	1	1
20. Psychoses with mental deficiency				—	2	2
21. Undiagnosed psychoses				9	9	18
22. Without psychosis, total				—	1	1
Others	—	1	1	—	—	—
Total				92	74	166

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses.*

RACE	Total			Traumatic			With cerebral arterio-sclerosis			General paralysis			With cerebral syphilis			With brain tumor		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	3	2	5	—	—	—	—	—	—	2	—	2	—	—	—	—	—	—
Chinese	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
English	16	14	30	—	—	—	1	—	1	5	—	5	—	1	1	—	—	—
French	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Hebrew	4	6	10	1	—	1	—	—	—	3	—	3	—	1	1	—	—	—
Irish	31	32	63	1	—	1	—	—	—	8	—	8	—	—	—	—	2	2
Italian <sup>1</sup>	7	4	11	—	—	—	—	—	—	6	—	6	—	—	—	—	—	—
Lithuanian	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Pacific Islander	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	2	1	3	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Scotch	4	—	4	—	—	—	—	—	—	3	—	3	—	—	—	—	—	—
Slavonic <sup>2</sup>	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Mixed	16	8	24	—	—	—	—	—	—	8	—	8	—	—	—	—	—	—
Race unascertained	4	2	6	—	—	—	—	—	—	1	1	2	—	—	—	—	—	—
Total	92	74	166	2	—	2	1	—	1	41	1	42	—	2	2	—	2	2

<sup>1</sup>Includes "North" and "South".

<sup>2</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE	With other brain or nervous diseases			Alcoholic			Due to drugs and other exogenous toxins			With other somatic diseases			Manic-depressive			Involution melancholia		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	1	1	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	2	2	—	—	—	2	—	2	—	1	1	2	2	4	—	1	1
French	—	—	—	—	—	—	—	—	—	—	1	1	—	1	1	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Irish	1	1	2	5	—	5	1	2	3	1	5	6	3	6	9	—	3	3
Italian <sup>1</sup>	—	—	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>2</sup>	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	—	—	—	—	—	1	—	1	—	2	2	2	3	5	—	—	—
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Race	1	4	5	5	—	5	5	2	7	1	13	14	7	14	21	1	4	5

<sup>1</sup>Includes "North" and "South".

<sup>2</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE	Dementia praecox			Paranoia and paranoid conditions			Psycho- neuroses and neuroses			With psychopathic personality			With mental deficiency			Undiagnosed psychoses			Without psychosis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	4	2	6	—	1	1	—	—	—	—	1	1	—	1	1	2	2	4	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Irish	6	5	11	1	2	3	—	1	1	—	—	—	—	—	—	4	4	8	—	1	1
Italian	1	1	2	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Scotch	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>2</sup>	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other specific races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	5	2	7	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—
Race unascertained	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Total	18	14	32	1	4	5	—	1	1	—	1	1	—	2	2	9	9	18	—	1	1

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	2	—	2	—	—	—	—	—	—	1	—	1
2. Senile	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	1	—	1	—	—	—	—	—	—	—	—	—
4. General paralysis	41	1	42	1	—	1	1	—	1	2	—	2
5. With cerebral syphilis	—	2	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	2	2	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	1	4	5	—	—	—	—	1	1	—	—	—
9. Alcoholic	5	—	5	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins	5	2	7	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	13	14	—	—	—	—	—	—	—	2	2
13. Manic-depressive	7	14	21	—	—	—	3	3	—	3	3	6
14. Involution melancholia	—	1	1	—	—	—	—	—	—	—	—	—
15. Dementia praecox	18	14	32	—	1	1	3	2	5	8	4	12
16. Paranoia and paranoid conditions	1	4	5	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	—	1	1	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	—	1	1	—	—	—	—	1	1	—	—	—
20. With mental deficiency	—	2	2	—	—	—	—	1	1	—	—	—
21. Undiagnosed psychoses	9	9	18	—	—	—	3	3	6	2	1	3
22. Without psychosis	—	1	1	—	—	—	—	—	—	—	—	—
Total	92	74	166	1	1	2	7	11	18	16	10	26

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued.*

PSYCHOSES	25-29 years			30-34 years			35-39 years			40-44 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	3	1	4	3	-	3	5	-	5	10	-	10
5. With cerebral syphilis . . . . .	-	-	-	1	1	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	3	-	3	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	3	-	3	1	-	1
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	1	1	-	1	1	-	3	3	-	-	-
13. Manic-depressive . . . . .	-	2	2	1	2	3	1	1	2	-	1	1
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia præcox . . . . .	5	3	8	-	1	1	2	2	4	-	1	1
16. Paranoia and paranoid conditions . . . . .	-	1	1	-	1	1	1	-	1	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	1	1	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	1	1	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	1	2	3	-	-	-	1	1	2	-	1	1
22. Without psychosis . . . . .	-	1	1	-	-	-	-	-	-	-	-	-
Total . . . . .	9	12	21	4	7	14	16	7	23	11	3	14

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded.*

PSYCHOSES	45-49 years			50-54 years			55-59 years			60-64 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	1	-	1	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	1	-	1
4. General paralysis . . . . .	11	-	11	4	-	4	1	-	1	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	1	1	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	2	2	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	3	3	1	-	1	-	-	-	-
9. Alcoholic . . . . .	1	-	1	1	-	1	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	1	-	1	-	2	2	-	-	-	-	-	-
11. With pellagra . . . . .	-	1	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	1	1	-	2	2	1	3	4	-	-	-
13. Manic-depressive . . . . .	-	2	2	2	-	2	-	-	-	-	-	-
14. Involution melancholia . . . . .	1	1	2	-	2	2	-	1	1	-	-	-
15. Dementia præcox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	1	1	-	-	-	1	1	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	1	1	2	-	-	-	1	-	1	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	15	6	21	8	9	17	4	8	12	1	-	1



TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses.

PSYCHOSES	Total			Illiterate			Reads and writes <sup>1</sup>			Common School			High School			College			Unascertained		
	Total			Illiterate			Reads and writes <sup>1</sup>			Common School			High School			College			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
4. General paralysis . . . . .	41	1	42	4	—	4	1	—	1	29	—	29	6	1	7	1	—	1	—	—	—
5. With cerebral syphilis . . . . .	—	2	2	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	1	4	5	—	—	—	—	—	—	—	3	3	—	1	1	—	—	—	—	1	1
9. Alcoholic . . . . .	5	5	10	—	—	—	—	—	—	3	2	5	—	—	—	1	—	1	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	13	13	—	—	—	—	—	—	—	10	11	—	2	2	—	—	—	—	—	—
12. With other somatic diseases . . . . .	7	14	21	—	—	—	—	—	—	1	6	7	4	6	10	2	2	4	—	—	—
13. Manic-depressive . . . . .	—	1	1	—	—	—	—	—	—	—	3	4	—	1	1	—	—	—	—	—	—
14. Involution melancholia . . . . .	18	14	32	—	—	—	—	—	—	9	7	16	4	6	10	5	1	6	—	—	—
15. Dementia praecox . . . . .	1	4	5	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	1	1	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	2	2	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	9	9	18	1	—	1	—	—	1	3	3	6	4	4	8	1	1	2	—	—	—
21. Undiagnosed psychoses . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	92	74	166	5	1	6	1	2	3	51	42	93	22	22	44	10	6	16	3	1	4

<sup>1</sup>Includes those who did not complete fourth grade in school.

TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Urban			Rural			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	2	—	2	—	—	—	—	—	—
2. Senile . . . . .	1	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
4. General paralysis . . . . .	41	1	42	40	1	41	1	—	1	—	—	—
5. With cerebral syphilis . . . . .	—	2	2	—	2	2	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	2	2	—	2	2	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	1	4	5	1	4	5	—	—	—	—	—	—
9. Alcoholic . . . . .	5	—	5	5	—	5	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	5	2	7	5	2	7	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	13	14	1	13	14	—	—	—	—	—	—
13. Manic-depressive . . . . .	7	14	21	7	13	20	—	—	—	—	1	1
14. Involution melancholia . . . . .	1	4	5	1	4	5	—	—	—	—	—	—
15. Dementia praecox . . . . .	18	14	32	18	13	31	—	1	1	—	—	—
16. Paranoia and paranoid conditions . . . . .	1	4	5	1	4	5	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	2	2	—	2	2	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	9	9	18	7	9	16	2	—	2	—	—	—
22. Without psychosis . . . . .	—	1	1	—	1	1	—	—	—	—	—	—
Total . . . . .	92	74	166	88	72	160	4	1	5	—	1	1

TABLE 11. *Economic Conditions of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Dependent			Marginal			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	—	—	—	2	—	2	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
4. General paralysis . . . . .	41	1	42	1	—	1	40	1	41	—	—	—
5. With cerebral syphilis . . . . .	—	2	2	—	1	1	—	1	1	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	2	2	—	—	—	—	2	2	—	—	—
8. With other brain or nervous diseases . . . . .	1	4	5	—	1	1	1	3	4	—	—	—
9. Alcoholic . . . . .	5	—	5	—	—	—	5	—	5	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	5	2	7	—	—	—	5	2	7	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	13	14	—	1	1	1	11	12	—	1	1
13. Manic-depressive . . . . .	7	14	21	—	1	1	7	13	20	—	—	—
14. Involution melancholia . . . . .	1	4	5	—	—	—	1	4	5	—	—	—
15. Dementia praecox . . . . .	18	14	32	1	—	1	17	14	31	—	—	—
16. Paranoia and paranoid conditions . . . . .	1	4	5	—	—	—	1	4	5	—	—	—
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
19. With psychopathic personality . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
20. With mental deficiency . . . . .	—	2	2	—	1	1	—	1	1	—	—	—
21. Undiagnosed psychoses . . . . .	9	9	18	—	—	—	9	9	18	—	—	—
22. Without psychosis . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
Total . . . . .	92	74	166	2	5	7	90	68	158	—	1	1

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Uncertain		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	1	—	1	—	—	—	1	—	1	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
4. General paralysis . . . . .	41	1	42	15	—	15	19	1	20	6	—	6	1	—	1
5. With cerebral syphilis . . . . .	—	2	2	—	1	1	—	1	1	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	1	4	5	—	4	4	—	—	—	—	—	—	1	—	1
9. Alcoholic . . . . .	5	—	5	—	—	—	—	—	—	5	—	5	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	5	2	7	1	—	1	1	2	3	3	—	3	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	13	14	1	13	14	—	—	—	—	—	—	—	—	—
13. Manic-depressive . . . . .	7	14	21	3	12	15	2	1	3	2	—	2	—	1	1
14. Involution melancholia . . . . .	1	4	5	—	4	4	1	—	1	—	—	—	—	—	—
15. Dementia praecox . . . . .	18	14	32	12	12	24	4	1	5	2	1	3	—	—	—
16. Paranoia and paranoid conditions . . . . .	1	4	5	1	4	5	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	9	9	18	8	7	15	—	2	2	1	—	1	—	—	—
22. Without psychosis . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
Total . . . . .	92	74	166	42	64	106	27	8	35	21	1	22	2	1	3

TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Single			Married			Widowed			Separated			Divorced		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	2	—	2	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
4. General paralysis . . . . .	41	1	42	20	—	20	19	—	19	1	—	1	—	1	1	1	—	1
5. With cerebral syphilis . . . . .	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	2	2	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	1	4	5	—	1	1	1	2	3	—	1	1	—	—	—	—	—	—
9. Alcoholic . . . . .	5	—	5	1	—	1	4	—	4	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	5	2	7	3	—	3	2	2	4	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	13	14	—	1	1	—	12	12	1	—	1	—	—	—	—	—	—
13. Manic-depressive . . . . .	7	14	21	5	10	15	2	4	6	—	—	—	—	—	—	—	—	—
14. Involution melancholia . . . . .	1	4	5	1	2	3	—	1	1	—	1	1	—	—	—	—	—	—
15. Dementia praecox . . . . .	18	14	32	14	11	25	4	2	6	—	—	—	—	—	—	1	1	1
16. Paranoia and paranoid conditions . . . . .	1	4	5	1	1	2	—	2	2	—	—	—	—	1	1	—	—	—
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	1	1	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	9	9	18	7	5	12	2	4	6	—	—	—	—	—	—	—	—	—
22. Without psychosis . . . . .	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Total . . . . .	92	74	166	54	35	89	35	32	67	2	4	6	—	2	2	1	1	2

TABLE 14. *Psychoses of Readmissions.*

PSYCHOSES	Males	Females	Total
General paralysis	—	1	1
Psychoses due to drugs and other exogenous toxins	—	1	1
Manic-depressive psychoses	1	5	6
Dementia praecox	1	4	5
Psychoneuroses	—	1	1
Undiagnosed psychoses	—	3	3
Total	2	15	17

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge.*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	—	1	—	—	—	1	—	1	—	—	—
2. Senile	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis	7	—	7	—	—	—	7	—	7	—	—	—
5. With cerebral syphilis	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	—	3	3	—	—	—	—	3	3	—	—	—
9. Alcoholic	1	—	1	—	—	—	1	—	1	—	—	—
10. Due to drugs and other exogenous toxins	3	—	3	1	—	1	2	—	2	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	—	3	3	—	—	—	—	3	3	—	—	—
13. Manic-depressive	1	6	7	—	2	2	1	4	5	—	—	—
14. Involution melancholia	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox	3	3	6	—	—	—	2	2	4	1	1	2
16. Paranoia and paranoid conditions	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	—	3	3	—	—	—	—	3	3	—	—	—
19. With psychopathic personality	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses	1	5	6	—	2	2	1	3	4	—	—	—
22. Without psychosis	—	—	—	—	—	—	—	—	—	—	—	—
Total	17	23	40	1	4	5	15	18	33	1	1	2

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Psychoses.*

CAUSES OF DEATH	Total			With cerebral arterio-sclerosis			General paralysis			Alcoholic			Manic-depressive			All other psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious Diseases</i>																		
Purulent infection, septicaemia.	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
<i>General Diseases not Included in Class I</i>																		
Cancer and other malignant tumors.	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
<i>Diseases of the Nervous System</i>																		
General paralysis of the insane	3	—	3	—	—	—	3	—	3	—	—	—	—	—	—	—	—	—
Other diseases of the nervous system.	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
<i>Diseases of the Circulatory System</i>																		
Arteriosclerosis	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
<i>Diseases of the Respiratory System</i>																		
Bronchopneumonia	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
<i>Diseases of the Digestive System</i>																		
Other diseases of digestive system (cancer and tuberculosis excepted)	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
<i>Non-Veneral Diseases of Genito-Urinary System and Annexa</i>																		
Nephritis	1	1	2	1	—	1	—	—	—	—	—	—	—	—	—	—	1	1
Other diseases of kidneys and annexa	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
Total	6	7	13	1	—	1	3	—	3	1	—	1	1	—	1	—	7	7

Includes Group 22, "without psychosis".

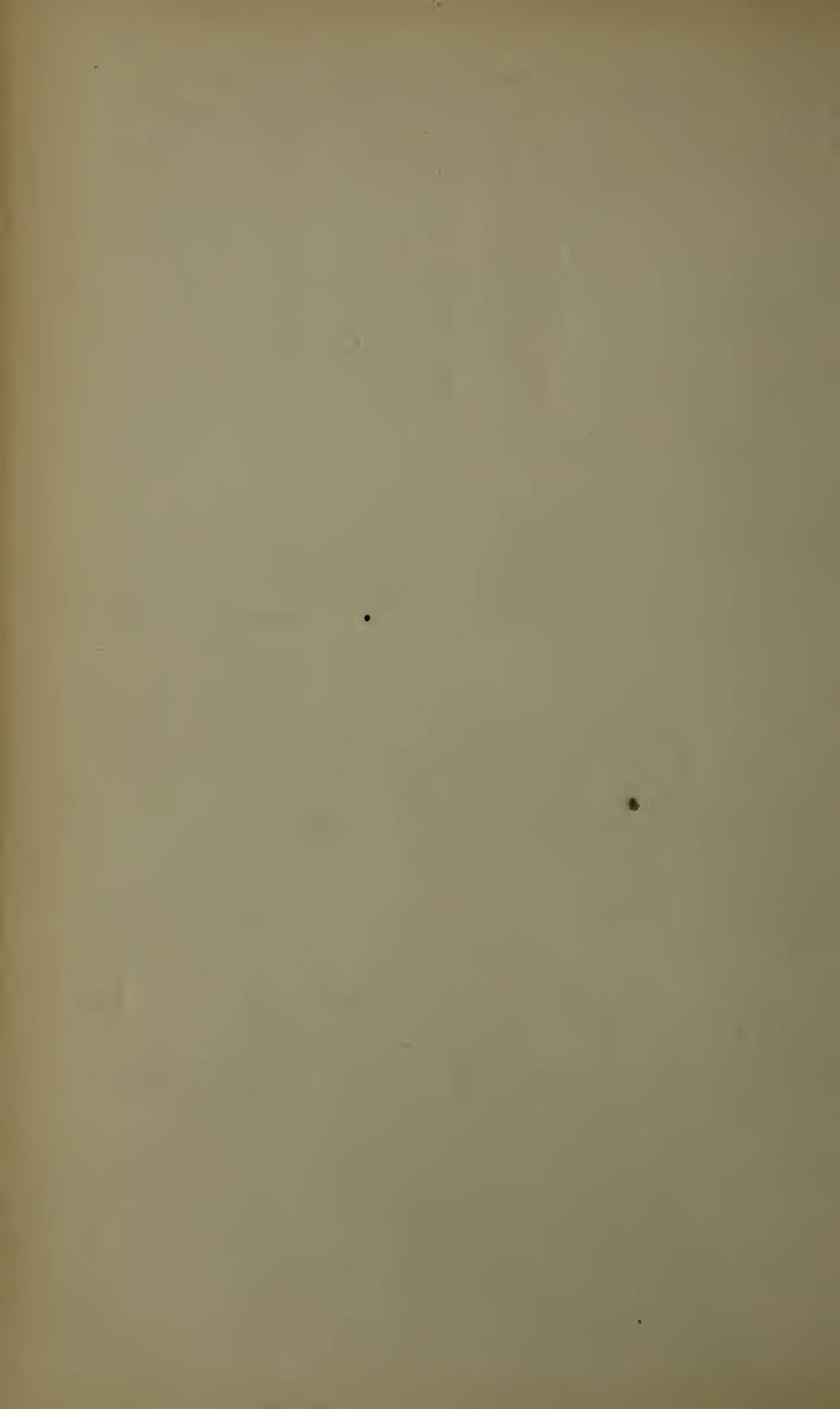


TABLE 17. Age of Patients at time of Death Classified with Reference to Principal Psychoses.

PSYCHOSES	Total		25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years
	M.	F.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	1	-	1	-	-	-	-	-	-	1
4. General paralysis . . . . .	3	-	3	-	-	-	1	1	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-
7. With brain tumors . . . . .	-	2	2	-	-	-	-	-	2	2
8. With other brain or nervous diseases . . . . .	1	1	1	-	-	-	-	1	1	-
9. Alcoholic . . . . .	1	-	1	-	1	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	3	-	-	-	-	-	1	1	2
13. Manic-depressive . . . . .	1	-	1	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	1	1	-	-	-	1	1	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-
Total . . . . .	6	7	13	2	1	1	1	2	3	1
					1	-	-	2	4	1

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses.*

PSYCHOSES	Total			Less than months			1-3 months			4-7 months			8-12 months			1-2 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	3	-	3	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	2	2	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
0. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. With other somatic diseases . . . . .	-	3	3	-	2	2	-	-	-	-	1	1	-	-	-	-	-	-
3. Manic-depressive . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
4. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1. Undiagnosed psychoses . . . . .	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
2. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	6	7	13	5	3	8	-	3	3	-	1	1	-	-	-	1	-	1



The Commonwealth of Massachusetts

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON PSYCHOPATHIC HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1931

1931

DEPARTMENT OF MENTAL DISEASES



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13y arrangement with the Department of Mental Diseases

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## REPORT OF THE TRUSTEES OF THE BOSTON PSYCHOPATHIC HOSPITAL.

*To His Excellency the Governor and the Honorable Council:*

We have the honor of presenting this admirable and highly interesting report from the officers of the Boston Psychopathic Hospital for the year 1931. The modesty of the statement of the many important activities bespeaks the highly scientific spirit in which they are carried on. The ordinary nursing and housing of mental patients is always, of course, of prime importance, but the study and research aspects of psychiatry as carried on in this hospital are of still deeper significance for the treatment of individual patients. Moreover, it is only through the continuous development of research methods that we shall ever be making any headway towards prevention of the terrible scourge of mental disease. What is aimed at and what is actually being accomplished is a thrilling story to anyone acquainted with this field and we are ever proud of the part which our hospital is playing and of the support by the Commonwealth of these highly fundamental and most practical ventures. The study of bodily conditions, of the mental life itself, and of the social factors and implications in these cases of mental disease are seen in this report to be closely interrelated and each to receive as thorough consideration as is possible with the personnel available.

That this hospital has been able to maintain such high standards in its personnel is a matter for congratulation and is due in no small part to the attitude of the Director and the Chief Medical Officer, Dr. Bowman. Many departments show highly commendable activities but once more we would call attention to the enormously important activities of the department of therapeutic research and to the extensive restoration of patients suffering from desperate mental conditions which is accomplished by Dr. Solomon and his co-workers.

In the light of frequent inquiries we note with much interest that the admission rate has not shown any special increase during the ten years of the existence of the hospital as a separate entity — a fact that has some bearing on the problem of whether mental disease is growing in quantity under the conditions of modern living. Then, too, the fact that during the present economic depression there has been no increase whatever, as is commented on in this report, is another point for those who question the relationship between social conditions and mental breakdown.

It is perfectly true that various departments feel themselves greatly cramped and that better work could be done if there were more professional people attached to the hospital. However, we can but feel highly gratified at the amount of work carried on as well as its high quality. The many pages of the report which prove these are worth careful perusal. This short introduction can serve no better purpose than to call attention to what is herein reported.

We express again this year our gratitude for the excellent service which has been rendered on every side by the Director, Dr. Campbell, the Executive Officer, Dr. Ball, who has just left us, and by the entire staff. Our monthly visits have brought forth practically no complaints and on every hand we have had many evidences of really splendid achievement.

Respectfully submitted,

WILLIAM HEALY, *Chairman.*  
ESTHER M. ANDREWS, *Secretary*  
WILLIAM J. SULLIVAN  
ALLAN W. ROWE.

CARRIE I. FELCH  
CHARLES F. ROWLEY  
CHANNING FROTHINGHAM  
*Trustees.*

### MEDICAL DIRECTOR'S REPORT

*To the Board of Trustees of the Boston Psychopathic Hospital:*

In accordance with the provision of the statutes I submit for your consideration the report for the statistical year ending September 30, 1931 and for the fiscal year ending November 30, 1931.

## GENERAL CONSIDERATIONS ON THE WORK OF THE HOSPITAL

In the annual report of a hospital one expects to find a concise summary of the work done, with a systematic presentation of tables and figures. These tables give the specific nature and the extent of the work done in various departments, and to one who is at first hand familiar with the work of a hospital they may give an accurate picture of its activity and may tell an eloquent story. There are many, however, who have little knowledge at first hand of the work of a hospital and to whom the nature of the problems dealt with at a psychopathic hospital is totally unfamiliar. The technical medical terms used in the tables of diagnosis may convey little meaning, and the reader may have no idea that in the technical term "schizophrenia" there lies concealed a human drama of interest, involving some of the fundamental issues of life. The conflict within the individual between instinctive and moral factors, the struggle of the individual to attain adult independence and to get satisfaction for his varied needs from the sources available to him in the environment, do not stand out clearly in formal statistical tables; the mere number of patients admitted gives no indication of the time and effort which is required to deal with the varied problems of the different types of mental disorder. The report of a psychopathic hospital is not only a report of the number of patients treated, and of the disorders from which they suffer, it is an attempt to present the activity of the hospital as a whole in its intimate connection with the life of the community. The work of the general hospital is of great importance to the community; it deals with acute and serious forms of illness, promotes the study of the cause and cure of disease, and helps to educate the community in problems of health. The work of the psychopathic hospital reaches still more deeply into the personal life of the individual, into the home, the schoolroom and the workroom, and should contribute to the knowledge of mental health and to practical measures for preventing shipwreck and for salvaging the disabled.

The greatest variety of patients are brought to the Boston Psychopathic Hospital. The patients present problems not as a rule dealt with by the general hospitals, which focus upon the health of the component systems or organs but do not accept patients whose primary disorder seems to involve the personality as a whole. In the patients of the Boston Psychopathic Hospital the disorder of the personality is in the centre of attention, whether that disorder express itself in physical complaints, in disordered behaviour or in a morbid attitude towards life.

Many patients come to the Boston Psychopathic Hospital on account of difficulties of which they themselves are aware. They are suffering from some mental distress, they are aware of some disturbance in their personality, they are perplexed by the way in which the world appears to them, they realize that their attitude towards their fellows is disturbed. In some cases the complaint is not primarily of a disturbance of the more complex functions of mood and outlook but of physical symptoms, of headache, sleeplessness, palpitation, faintness, uncomfortable feelings of one kind or another, based upon some obscure disturbance of the instinctive and emotional life. In other cases the patient realizes no personal difficulty or disorder but is brought because, owing to his behaviour or his outlook on life, he is considered sick by others. Looking through his troubled medium the patient sees a world which is full of strange and disturbing forces, of hostility and suspicion and criticism, and he sees forces at work of which previously he would have denied the existence.

Other patients are brought to the hospital on account of social conduct which is disturbing and which in the past has usually been dealt with by disciplinary measures. Many adult patients are sent by the court on account of disturbance either in the home or outside of the home. The problem may be one of theft or other fraudulent behaviour, of episodes of violence or of sexual misconduct, or it may be a question of marital incompatibility. It is becoming more frequent to postpone disciplinary measures until there has first been made a thorough study of the behaviour and outlook of the individual in the same way in which one studies the behaviour and outlook of a person who is mentally sick.

Many children are brought to the clinic on account of problems presented in the schoolroom, the problem being either lack of academic progress or disturbing behaviour of various types.



The role of the hospital in such a case is to act as expert adviser and to put at the disposal of the parent, the school or the court whatever insight into the underlying factors has been gained, so that the home, the school, the court can deal in a more intelligent way with its own special problems.

The primary role of the hospital is the study and care of the patients referred to it, but the hospital has also the responsibility for carrying on scientific investigation into the causes of mental disorders and into the treatment of them. In addition, it serves as a school of instruction for various types of students including medical students, medical graduates, psychologists, nurses, occupational therapists, social workers and laboratory technicians.

#### ON SOME OF THE PROBLEMS PRESENTED BY THE PATIENTS

In previous reports it has been felt advisable to give some concrete examples of the exact problems presented by the patients admitted to the hospital and in different years examples have been taken from different groups of mental disorder. Attention in past reports has been paid to mental disorders which occur in the setting of bodily sickness, to delinquency as the result of organic brain disease, to conditions of depression elicited by specially trying circumstances.

In connection with this last topic, the question has arisen whether the present economic difficulties, already of considerable duration, have not had a considerable effect in precipitating mental disorder. As a matter of fact, the staff of the hospital have considered this subject and find little evidence in their own hospital patients to indicate a period of special economic strain. During the past year, as in previous years, patients have been admitted with pronounced depression coming on after prolonged unemployment or financial losses, but cases of this type seem to have been no more frequent during the past year than during previous years.

The question of the causation of mental disorders in the individual case is always a most complex one. It is only in the simpler situations such as the delirium of typhoid fever or the dementia of brain tumor that mental disorder can be attributed to a single cause. In most cases the mental disorder is to be understood as the reaction of a special individual with his own life history to the special stresses to which he is subject. Constitutional endowment, early moulding influences, undigested and repressed experiences, intercurrent physical disorders, unhappy situations of prolonged or acute nature all contribute to the development of the mental disorder. Where a mental disorder follows upon economic difficulties, either acute or chronic, one must hesitate to lay all the stress upon the economic difficulty and must give due weight to the factors which determine the way in which the individual reacts to such strains. Economic stress may be wide-spread without there being much increase of mental disorder if the community as a whole has a certain degree of resistance and adaptability. The fact that an economic situation is general may have something to do with its comparative innocuousness, for a discomfort or a trial borne in common, with no concealment or repression, is a different matter from a trial to which one is exposed as an isolated individual, which differentiates the individual from his neighbors, which is concealed from others and repressed from one's own consciousness.

#### ON CHRONIC ALCOHOLISM AS A CAUSE OF MENTAL DISORDER AND AS A SOCIAL PROBLEM

Among the patients admitted to the hospital are many whose mental disorder is largely due to chronic alcoholism. Such cases present for medical study many interesting problems, partly at the physiological level, partly at the psychological level. The underlying nutritional and toxic factors in delirium tremens are still quite obscure. The psychological factors which have determined the addiction to the use of alcohol deserve careful scrutiny in each case. The social factors involved in the problem are matters of general interest and of wide discussion.

The following cases illustrate the complicated personal and social issues presented by patients with mental symptoms due to chronic alcoholism.

A.B., aged 37, a railway worker, had been brought before the court on account of non-support of his wife and child. He was referred by the court to the hospital on account of his queer behaviour and unintelligent answers in court. On admission he was found to present a great variety of nervous symptoms due to chronic



poisoning. His speech was slurring, he walked unsteadily, there was weakness of the external ocular muscles. In addition, the mental functions were involved. He thought that the hospital was a private house and that the month was June (October), and was unable to grasp the meaning of the situation. The patient was transferred to a state hospital for continued treatment.

The memory of this patient was damaged perhaps permanently, and it was possible that he would be unable to resume his place in the community. The condition was the later stage of a life which had already been punctuated by many arrests for drunkenness. He had been a danger to the community from driving an automobile under the influence of liquor.

B.C., aged 38, a married woman, had become noisy and unmanageable while in jail where she had been sent on account of intoxication. The patient showed a rather superficial and flippant attitude, was not at all confused, reviewed her history with the examiner, seemed to have good insight into the whole situation. The disturbing behaviour in the jail had apparently been of a quite temporary nature. This patient had been in a reform school during adolescence. Since then she had spent about 12 years of her life in penal institutions, chiefly on account of her drinking habit. She had married at the age of 28 but was deserted by her husband at the end of one year. Her drinking episodes were usually in company with other women. In this case one sees an individual of somewhat poor endowment, with inefficient home upbringing who, after a certain period in a reform school, had drifted along in life in a haphazard and stumbling way and had come many times to the attention of the social authorities and received jail sentences without any constructive work being done.

C.D., a married woman of 38. Even before 20 she had been accustomed to go on drinking sprees, and she continued this habit after marriage. During the acute episodes she behaved in a very irresponsible manner. Previous to her admission she had been very excited and incoherent, suspicious of those around her, had hallucinations.

The patient cleared up soon after admission but she was unwilling to stay in the hospital in order that her problems might be thoroughly studied, and was taken out by her husband against the advice of the physicians.

D.E., a divorced woman of 32, was admitted in a somewhat excited condition two weeks after she had been discharged from a state hospital. She had already three times during the year suffered from acute mental disorder based upon her alcoholic habits. Five years previously she had already had a record of twenty arrests for alcoholism or for misdemeanors connected with alcoholism. She was probably immoral, quite incompetent to care for her three children, and her original mental endowment was very meagre.

The acute symptoms soon cleared up and the patient discussed her situation in a clear way, referring to her good intentions and plans for the future as she had always done on previous occasions before leaving the hospital.

The poor original endowment of this woman and the actual history of her experiences were a sufficient indication of what her later career would be, unless strictly supervised. Such a case presents a very difficult problem from the point of view of institutional management. To afford adequate institutional facilities for not only the supervision but the appropriate occupation and treatment of such a patient may seem expensive, but against this expense has to be balanced the inevitable expense of a prolonged series of social misdemeanors with wide reaching consequences and the expense of police and court procedures.

E.F., aged 57, was brought to the hospital after a violent altercation with his wife. For many years there had been much marital friction and on one occasion he had attempted suicide. He had been drinking illicit liquor manufactured by his wife and his eyesight had been impaired by this. In addition to the mild impairment of his eyesight and the acute altercation previous to admission, the patient showed a mild degree of mental confusion.

In this case the alcoholism seemed to be more or less incidental to a difficult marital situation.

F.G., aged 40, was transferred to the Boston Psychopathic Hospital from the Boston City Hospital in a state of great excitement. He had been taken to the

Boston City Hospital in a comatose condition. On admission to the Boston Psychopathic Hospital he showed marked motor disorder, was in a condition of delirium; after nine days in hospital he was able to return home.

In this case no detailed study was made of the extent of the patient's drinking or of the psychological factors which had led to it.

G.H., aged 37, after a heavy drinking bout at a convention became afraid, suspicious and heard voices. The patient throughout his whole life had been somewhat eccentric and there had been increasing lack of compatibility with his wife, with episodes of friction and of gross behaviour on his part.

The drinking, with the acute exacerbation, was only one phase in an ill-balanced and difficult life, but the alcoholism had been the major factor in precipitating the mental disorder.

H.I., aged 44, a housewife, for 14 days had been drinking to excess and had been extremely jealous of her husband, making public accusations of infidelity and causing disturbing scenes. She said that she was more of a man than a woman; she disliked women unless they would drink with her. Before admission to the hospital she had been hearing imaginary voices, threatened to kill her husband, claimed that she had miraculous power.

I.J., aged 46, a longshoreman. The patient, an affectionate and kindly father of a family, a favorite in the community, had for a considerable period been indulging periodically in prolonged alcoholic sprints, associated with violent behaviour. In one of these attacks he was brought into the Boston Psychopathic Hospital. A few days after admission he was quite clear and apparently in his normal condition. The examination of the patient could only be made through an interpreter so that no detailed review of the psychology of the case was possible.

J.K., aged 48, a divorced woman, had for years been indulging intermittently in alcohol. She had married at 19 but was deserted in a few years when she had one child. Throughout her life she had shown a marked tendency to depression and the alcoholism may have been largely determined by the depression. For some time before admission she had also indulged in veronal. The picture in the hospital was that of a rather depressed woman, somewhat discouraged with the record of her life. She attributed the beginning of her alcoholism to working as a government employee in a situation where there was too much liquor around. In this case the chronic alcoholism had to be considered in the light of the constitutional endowment, the tragic marital situation, the temptations of the social environment.

The review of the cases of mental disorder due to alcoholism, who have passed through the hospital, is a somewhat discouraging experience. In many cases the hospital is only acting as adviser to the court. In other cases the hospital merely helps the family of the individual in an emergency, while after the emergency the family is content to resume the previous condition and the patient himself considers the whole episode disposed of without any further analysis of the underlying roots of the disorder. The physician is in the discouraging situation in many cases of merely observing and recording a transitory episode in a rather tragic life history, without having either the opportunity to make a thorough study of the case or the authority to deal with the situation. It is apparent, even from a casual review of the above brief histories, what an important role social factors play in the prevention and in the management of such disorders.

Patients are referred from the courts for various causes and the following cases illustrate the type of assistance which the hospital can furnish to the court.

K.L. was brought before the court on the charge of being a stubborn child by his mother who was probably untruthful and of dubious character. She wanted him placed in an industrial school but the court referred the boy to the hospital for a complete study. The boy was found to be of average intelligence and of fairly stable endowment and quite capable of taking advantage of better home conditions. It was recommended, therefore, that he be sent to a foster home where he had already spent some time and where the foster mother was genuinely interested in his welfare.

L.M., aged 14, a schoolboy, was referred by the court on the urgent appeal of the family physician. The boy had been brought to court on account of stealing automobiles, but the family physician had realized a certain oddity in the previous



behaviour of the boy. The hospital examination revealed the presence of some organic nervous disorder, probably a brain tumor, and the boy was referred to another clinic for surgical study.

M.N., aged 28, a colored woman, was brought into court on account of intoxication. She was found to have a well marked mental disorder and the intoxication was only an incidental episode. An employer of the patient, who was well aware of the nature of the mental disorder, was willing to take the patient back into her employ and give her adequate supervision.

N.O., aged 30, of no occupation, was brought into court on account of drunkenness which, however, had been preceded by a violent outbreak. For many years he had been subject to epilepsy and there was a history of a head injury. Since the age of 15 there were at least 40 police records, most of which were for drunkenness. In this case the responsibility for the supervision of the situation was with the Veterans Bureau.

O.P., aged 14, a schoolboy, was referred by the court where he had been brought on the charge of being a stubborn child. The main indication of this was that he had frequently run away from home. The study of the child showed that he was a boy of rather superior intelligence in an extremely bad home situation to which the running away was a quite healthy reaction. Arrangements were made to have him under the care of a child-placing agency while he was also referred to a neighboring hospital for treatment of a special blood disease.

The general run of patients who come to the hospital can be grouped into (a) those whose symptoms are caused by some damage to the central nervous system or by some general somatic disorder and (b) those whose symptoms form part of an unsuccessful adaptation of the individual to the problems of his cultural environment.

In the study of those cases where there is an underlying somatic disorder technical equipment similar to that of a general hospital is required. The physicians have to treat cases of mental disorder following childbirth or accompanying a great variety of febrile disorders, patients who have suffered head injuries or other injuries sometimes self-inflicted, various forms of heart disease and respiratory infections, gastro-intestinal disorders, pernicious anemia, polyneuritis, diabetes, endocrine disorders, the more familiar forms of organic damage to the brain such as general paralysis, encephalitis, cerebral arteriosclerosis, tumor, meningitis, cerebral hemorrhage. In the treatment of such varied conditions the staff is fortunately able to call on a group of consultants whose generosity in responding to the demands made on them it is a pleasure to acknowledge here.

In the study of those cases where the problem is that of an unsuccessful adaptation to the wider issues of life the physical status of the patient has to be investigated, but the major task is the detailed and systematic analysis of the personality and a careful review of the actual life situation, with its special significance for the patient. It is only in a limited number of cases that the conditions are present for a detailed review of the personality. The mental disorder itself may prevent the cooperation of the patient, or the patient may not be willing to accept the suggestion of the physician that such a psychological analysis be undertaken. In some cases the level of intelligence is not favorable for such an analysis. In other cases there may be language difficulties, while administrative factors sometimes make it impossible to keep the patient in the hospital during the period required. The time consumed in a thorough review of the personality is very great and it is only in a small number of patients that the procedure can be carried out to the extent desired. The procedure is, however, more than a mere method of study. It is of the greatest value to the individual patient, making much clearer to him the forces which underlie his behaviour and attitude and bringing them more directly under the influence of his own conscious direction. The insight into the underlying mechanisms of the personality derived from the intensive study of a small number of cases is of the greatest value in the interpretation of the symptoms and the treatment of other cases where no such complete analysis is possible. These studies which are so important for the treatment of the individual patient contribute valuable information to knowledge of the normal personality and are of cardinal importance for any thorough study of domestic and wider social relations.

## ON TREATMENT

In a number of cases the patients come to the hospital merely for diagnosis, but a considerable number come not only for diagnosis but for treatment. In some cases, especially those of acute onset and of more benign nature, the patient may be treated in the hospital until convalescent and able to return home. In other cases where the treatment promises to be a matter of very long duration the patient may sooner or later be transferred to a state hospital for continued treatment.

The treatment of mental disorders may be roughly divided into special procedures for specific underlying somatic disturbances and into more general procedures directed to the reestablishment of the psychological equilibrium and of the adaptation of the patient to the social group.

With regard to special therapeutic procedures, Dr. Solomon in his report discusses briefly the treatment of neurosyphilis, of epilepsy and of stuporous conditions.

The general treatment of the patient in whom no specific somatic ailment is present is a complicated activity, which does not stand out in bold relief as a separate factor but which permeates the whole of the life of the wards. Students are apt to think that there is little treatment being carried on in the wards because the familiar apparatus for the treatment of medical and surgical cases is comparatively little in evidence. They may not at first realize, any more than the casual visitor, how important for the treatment of the individual case are not only removal from the ordinary social and economic responsibilities of the everyday environment and adaptation to the hospital routine, but also the repeated interviews with the physician, the contact with the nurses, the atmosphere of the department of occupational therapy.

The organization of the nursing service, with the large number of affiliated nurses from other hospitals who spend three months at the Boston Psychopathic Hospital, proves to be very satisfactory. The frequent change of personnel may have some drawbacks, but the influx of eager and interested workers has a decidedly stimulating effect. The new workers soon absorb the point of view of the staff and return to their general hospital with a much broader outlook on the field of nursing in general.

During the past year the occupational therapy department lost Miss Humphrey as its guiding spirit. Miss Humphrey had for nine years directed this department in a quiet, efficient, thoughtful and progressive way and had on more than one occasion published articles dealing with her specialty. The hospital owes a debt of gratitude to Miss Humphrey, and her successor, Miss Waite, in taking charge of the department found a tradition of technical accomplishment and of personal devotion which is a great asset; Miss Waite comes to the work well prepared by her previous training, and is no stranger to the hospital having worked there as assistant in the department of occupational therapy from 1921 to 1925.

## ON THE SOCIAL SERVICE DEPARTMENT

In a small proportion of the patients of the Boston Psychopathic Hospital the disordered behaviour or morbid attitude is merely symptomatic of some underlying impersonal process interfering with the normal working of the brain, and in these cases the attention of the physician is focussed upon the underlying bodily disorder and on the specific methods of treatment indicated. In a larger number of cases the mental symptoms can only be understood as part of a process whereby the patient unsuccessfully attempts consciously or unconsciously to adapt himself to certain situations of the social environment or within his own personality. As has been stated above the clinical picture cannot be understood unless one understands the forces which make the patient what he is and unless one understands the situation to which he has to react. The study of the patient means a study of his original endowment and of the past experiences which have helped to mould the personality.

The aim of the physician in such a case is not to combat an impersonal disease process but to help a human being with his complex organization to adapt himself in a better or more socially acceptable way to the conditions of social life.



It is not often possible for the physician, unaided, to make an accurate study of the external forces which have moulded the patient nor of the environment with the complicated social values involved. In assisting the patient to regain his equilibrium it may be important not only to help the patient to deal better with personal factors for which he is responsible, but also to modify the situation so that the patient will be exposed to less stress.

In both these tasks of study and of treatment the psychiatric social worker is invaluable. She enables the physician to understand much more clearly the development of the disorder, and she is able to translate into practical terms many of the general recommendations of the physician. The co-operation of the social service department with the clinical staff of the hospital on the one hand, and with many social organizations of the community on the other hand is essential for the satisfactory functioning of the hospital. During the past year the work of the department has continued to be of the same high level as in previous years and the effort has been made to make the cooperation with community agencies as close as possible. In the Friday morning conferences of the out-patient department the psychiatric social worker plays an important role and maintains an increasingly intimate contact with the workers of the various agencies and with the special needs of the various agencies.

In the work of child guidance and of parent guidance the social worker takes an increasingly important place, and the work involved in the discussion of parental and of marital problems steadily increases.

In regard to the court cases which have always required a great deal of time for the gathering of important data the psychiatric social worker during the past year has, in addition, followed up many of the individual cases until they have been placed under the care of some other agency. The psychiatric social worker often has appeared in court in order to explain, if necessary, the formal psychiatric conclusions and to discuss matters with judge or probation officer, and sometimes has undertaken on request the supervision of the case. An example of this type of activity is given in the report of the chief social worker. In this way the work with cases referred by the courts has been less of a routine nature; there has been increasing emphasis on going beyond the stage of a mere formal diagnosis and report and on emphasizing the problem of constructive work with the individual case.

One of the important services of the social service department is to keep in contact with discharged patients who may still be somewhat vulnerable and require a little supervision or assistance. It is creditable to the social service department that patients who have not been at the hospital for over ten years sometimes call up the department when they are in some personal trouble. Sometimes the patient may not wish to consult the physician in case a return to hospital care might be insisted on, and may hesitate to call up a social welfare agency for some other reason. The social service department seems to be looked upon as representing a source of help to which they can appeal with the greatest freedom.

#### ON RESEARCH

One of the functions of the hospital is to promote research into the causes and cure of mental disorders; during the past year as in previous years a series of investigations have been carried on in the effort to penetrate further into the intimate mechanisms of mental disorders, with prevention or cure as the ultimate goal of such research. Research does not necessarily have an immediately practical goal and should not be expected at every stage to show the cash value of every small acquisition of knowledge. Important practical benefits are frequently derived from research, which is not directed at immediate gains but which is the expression of a restless intellectual curiosity working in the special field of the worker's own choice. This intellectual curiosity may be as active in the wards as in the laboratories. It may play as constantly upon the complexities of human relations as upon the nature of chemical processes.

In the Boston Psychopathic Hospital there is a wide choice of topics available for research. There are problems of the personality and of the adaptation of individuals of different types to various social factors. There are problems of the influence of the school and of the home, problems dealing with industry and the

choice of vocation, problems dealing with the varied creeds of man and the part they play in his adaptation to the stress of life. There are problems connected with the symptoms of various types of illness, with infectious and defensive processes, with the effect of different therapeutic procedures, with the internal chemical regulation of the body. The diversity of interests can be seen by anyone who glances through this report. He will see in the extremely concise report from the psychological laboratory how Dr. Wells and his co-workers have been consistently studying the improvement of psychometric technique, the application of such a special test as the Rorschach Test to the analysis of personality, the detailed steps in the mental evolution of the infant and the pre-school child.

In the report from Dr. Solomon's department one gets a condensed reference to technical methods of studying the processes at the basis of certain clinical conditions, and to various methods of therapeutic attack. He also discusses some of the general administrative problems of a special clinic and the varied human factors that enter into the work of such a clinic.

Dr. Grabfield, while supervising the general procedures for the routine laboratory studies that are made of blood, cerebro-spinal fluid and urine etc., carries on with the somewhat limited facilities at his disposal a continued series of researches on the intimate chemical changes which are at the basis of the vital functions.

The type of result reached by the various investigative activities is seen at a glance in the list of publications from the hospital, among which one may call attention to two studies of Dr. Agnes Goldman Sanborn on the bacteriology of the gastro-intestinal tract which have been published in the *Journal of Infectious Diseases*.

Of more obvious human interest is the continued research on the schizophrenic disorders, that is, on those serious disorders which alienate the patients seriously from their fellows; the patients wrapped up in their preoccupations and delusions may have to lead long periods of their lives away from the rather exigent normal cultural environment in the tolerant and considerate environment of the state hospital. This investigation has involved the careful review and analysis of large series of case histories, with special attention paid to the varied needs and weaknesses of the patients, the special stresses and strains to which they have been subjected during their lives, the presence or absence of helpful cultural resources, the role of special factors in family life, sex adaptation, religious beliefs. It is hoped that this material will not only throw some light on the problems of mental disorders, but will be of some value to those working in the general field of sociology.

It is to be regretted that investigation into the neuropathological basis of mental disorders at the hospital still remains neglected as the hospital is without its own pathologist. Dr. Fulstow, the state pathologist who had been acting as chief of the neuropathological laboratory, resigned from her position September 1, 1931. Since her resignation Dr. M. M. Canavan has been acting as state pathologist and taking charge of the routine pathological work of the hospital.

#### ON THE WORK OF THE OUT-PATIENT DEPARTMENT

There are many patients who are still able to carry on their work at home or at their daily vocation who require psychiatric treatment but who do not require to interrupt their outside program and come into the hospital. The out-patient department offers such patients the special help which they need and enables many individuals to carry on in a productive way with life made much more tolerable.

Old traditions are modified slowly, names and associations continue to exert much influence on human behaviour. Many patients would take advantage of the facilities available at the hospital were it not for the fact that the term "psychopathic" still has a dread significance for them. It is probably better, however, that people should slowly learn to deal honestly with real factors than that one should try by fine names to evade serious issues. As a matter of fact, the out-patient department with its present limited personnel has as many patients as it can efficiently handle, so long as it gives adequate attention to the problems of the individual case.

It is gratifying to observe the general development of mental hygiene facilities in Boston, a development which is reflected in the somewhat changing demands



made upon the out-patient department. The minor disorders of childhood such as tantrums, enuresis, night terrors, capriciousness with regard to food, etc., are evidently being dealt with now by the many clinics which have sprung up in the last few years in order to direct parents in the formation of the habits of their children. The more complex nervous disorders of childhood are now more prominent in the children who are brought to the out-patient department for advice.

The consultation basis, upon which the out-patient department is run, functions very satisfactorily and appears to be appreciated by the agencies which utilize the clinic.

Special attention has been given to developing cooperation with the workers in agencies, which make use of the clinic, and this cooperation has been specially encouraged by means of the Friday morning conferences in the Out-Patient department which have been organized with the general welfare agencies. In these conferences workers from outside agencies are encouraged to bring up their problems, outline the type of help which they desire from the hospital and the resources which they have for helping the hospital to carry out its special task. In the past there has been a tendency for contact with the agencies to be of a rather formal nature; cases have been referred with insufficient data and for ill-defined reasons and reports from the hospital, couched in somewhat technical terms, have been read with little gain and with no further inquiry as to the substance of the report. The personal presence of the workers at the Friday morning conferences has made a material difference in this situation, and it is felt that now the individual agencies realize more clearly what the hospital has to offer in the way of diagnosis and recommendations for treatment, while the hospital is better aware of certain special facilities which are available through the agencies in the way of better living opportunities for the children examined and of special training for those with special abilities and disabilities. In this way the work of the physician is made much more readily available to such important community organizations as the Community Health Association, the Family Welfare Society, the Federated Jewish Charities, various child-placing agencies, agencies dealing with unmarried mothers, special agencies for vocational placement.

Special forms have been drawn up so that in the individual case the agency can outline clearly the nature of the service desired from the hospital and can supply the type of data which are required for an intelligent study of the case.

#### ON THE GENERAL ADMINISTRATION OF THE HOSPITAL

The annual report indicates the variety of functions and the number of departments which are involved in the work of the hospital and some reference has been made to each of these activities in detail. The coordination of these activities is an important problem, and for the efficient work of the hospital there must be not only efficient clinical and investigative personnel but there must be the efficient organization of the general service personnel, with attention to supplies, upkeep of plant and careful supervision of many formal and administrative details connected with the admission and discharge of patients and with contact with relatives. The smooth running of the hospital is very largely due to the personality of Dr. Arthur N. Ball who has been its Chief Executive Officer for 3 years and whom the staff sees with regret transferred to another sphere of activity.

I take this opportunity to express my appreciation of the spirit of good will, industry and devotion which characterizes the medical staff and the general personnel of the hospital. It is also a pleasure to thank the Board of Trustees for their cordial cooperation and to express admiration for the continued interest which they take in all problems of the hospital and for their willingness, whenever called upon, to give generously of their time and advice; in equal measure one appreciates the support consistently received from Dr. Kline, Commissioner of Mental Diseases, who has always dealt in a receptive and constructive way with the problems which are brought to him for his consideration.

Respectfully submitted,

C. MACFIE CAMPBELL,

*Medical Director.*

Annual Statistics Classified according to Legal Status, October 1, 1930 to September 30, 1931

PSYCHOSES	All First Admissions		All Readmissions		First Admissions by Regular Court Commitment		Readmissions by Regular Court Commitment		Temporary Care First Admissions		Temporary Care Readmissions		Voluntary First Admissions		Voluntary Readmissions	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Traumatic psychoses	3	1	4	1	1	1	1	1	3	2	1	1	1	1	1	1
Senile psychoses	2	21	34	1	4	1	5	2	9	2	1	1	1	1	1	1
Psychoses with cerebral arteriosclerosis	13	21	34	1	4	1	5	2	9	2	1	1	1	1	1	1
General paralysis	73	18	91	6	12	34	11	45	36	7	3	5	3	3	1	2
Psychoses with cerebral syphilis	7	2	9	1	1	1	1	1	6	2	1	1	1	1	1	1
Psychoses with brain tumor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Psychoses with other brain or nervous diseases:																
Paralysis agitans	1	1	2	2	2	2	2	2	1	1	2	2	1	1	1	1
Multiple sclerosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Tabes dorsalis	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Encephalitis lethargica	2	1	3	1	1	1	1	1	2	1	1	1	1	1	1	1
Undetermined	11	13	24	2	1	3	4	1	11	13	24	2	1	3	1	1
Other types	4	6	10	1	1	1	3	4	3	3	6	1	1	1	1	1
Alcoholic psychoses:																
Type undetermined	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Delirium tremens	40	40	8	5	1	1	1	1	38	6	5	5	1	1	1	1
Korsakow's syndrome	6	2	8	1	1	1	1	1	6	2	8	1	1	1	1	1
Acute hallucinosis	21	10	31	5	1	1	1	1	20	10	30	5	1	1	1	1
Other types	23	4	27	7	1	8	1	1	23	4	27	6	1	7	1	1
Psychoses due to drugs and other exogenous toxins:																
Opium and derivatives	8	19	27	2	3	5	1	1	7	17	24	2	3	5	1	2
Due to gases	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1
Other exogenous toxins	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Psychoses with pellaagra	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Psychoses with other somatic diseases:																
Delirium with infectious diseases	4	4	8	1	1	2	3	1	3	2	5	1	1	1	1	1
Delirium of unknown origin	1	2	3	1	1	2	2	2	1	1	1	1	1	1	1	1
Cardio-renal diseases	3	12	15	1	1	3	3	1	3	9	12	1	1	1	1	1
Other disease or conditions	20	20	20	2	2	7	7	7	13	13	13	1	1	1	1	1
Other types	6	1	7	2	2	2	2	2	6	2	6	2	2	2	2	2
Undetermined	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Manic-depressive psychoses:																
Manic type	23	26	49	10	11	21	1	3	22	23	45	10	11	21	1	2
Depressive type	56	53	109	13	11	24	4	8	51	48	99	12	10	22	1	2
Other types	19	21	31	10	4	14	1	1	19	12	31	10	4	14	1	1



*Annual Statistics Classified according to Legal Status, October 1, 1930 to September 30, 1931 — Concluded.*

Psychoses	All First Admissions			All Readmissions			First Admissions by Regular Court Commitment			Readmissions by Regular Court Commitment			Temporary Care First Admissions			Temporary Care Readmissions			Voluntary First Admissions			Voluntary Readmissions		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Involution melancholia	10	23	33	—	—	—	—	2	2	—	—	—	9	21	30	—	—	—	1	—	1	—	—	—
Dementia praecox (schizophrenia)	105	116	221	26	32	58	18	10	28	—	—	—	87	105	192	26	32	58	—	1	1	—	—	—
Paranoia or paranoid conditions	25	35	60	4	2	6	1	3	4	—	—	—	24	31	55	4	2	6	—	1	1	—	—	—
Epileptic psychoses	8	10	18	8	7	15	—	—	—	—	—	—	8	5	13	7	7	14	—	2	2	1	—	1
Psychoneuroses and neuroses:																								
Hysterical type	3	20	23	2	1	3	—	1	1	—	—	—	3	17	20	2	1	3	—	2	2	—	—	—
Psychasthenic type	15	12	27	5	5	10	1	—	1	—	—	—	11	12	23	3	3	6	3	—	3	2	2	4
Neurasthenic type	9	2	11	4	—	4	—	—	—	—	—	—	0	2	1	4	1	4	—	—	—	—	—	—
Other types	5	2	7	—	1	1	—	—	—	—	—	—	5	2	1	—	—	—	—	—	—	—	—	—
Psychoses with psychopathic personality	5	5	10	2	4	6	—	—	—	—	—	—	5	5	10	2	4	6	—	—	—	—	—	—
Psychoses with mental deficiency	16	9	25	6	4	10	—	—	—	—	—	—	16	9	25	6	4	10	—	—	—	—	—	—
Undiagnosed psychoses	77	91	168	23	16	39	5	12	17	—	—	—	70	78	148	23	16	39	2	1	3	—	—	—
Diagnosis deferred	24	19	43	—	6	6	—	—	—	—	—	—	23	19	42	—	6	6	1	—	1	—	—	—
Without psychoses:																								
Epilepsy without psychosis	6	8	14	2	5	7	—	—	—	—	—	—	3	5	8	1	2	3	3	3	6	1	3	4
Alcoholism without psychosis	35	10	45	4	4	8	—	—	—	—	—	—	35	10	45	4	4	8	—	—	—	—	—	—
Drug addiction without psychosis	1	—	1	1	—	1	—	—	—	—	—	—	1	—	1	1	—	—	—	—	—	—	—	—
Psychopathic personality without psychosis	47	24	71	12	9	21	1	—	1	—	—	—	43	22	65	12	9	21	3	2	5	—	—	—
Mental deficiency without psychosis	34	34	68	10	2	12	—	—	—	—	—	—	33	33	66	10	2	12	1	1	2	—	—	—
No associated conditions	20	28	57	1	—	1	—	—	—	—	—	—	29	28	57	1	—	—	—	—	—	—	—	—
Other conditions	78	40	118	6	4	10	—	—	—	—	—	—	72	39	111	2	3	5	6	1	7	4	1	5
Epilepsy with mental deficiency	1	1	2	—	—	—	—	—	—	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—
Total	866	721	1,587	181	164	327	73	69	142	4	1	5	765	635	1,400	168	138	306	28	17	45	9	7	16

## REPORT OF THE OUT-PATIENT DEPARTMENT

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith submit the report of the work of the Out-Patient Department for the year ending November 30, 1931.

The staff of the clinic during the past year was as follows:

Dr. C. Macfie Campbell, Director of the Hospital.

Dr. Oscar J. Raeder, Chief of Out-Patient Department.

Dr. Mary Palmer, Assistant Physician.

Dr. Charles B. Sullivan, Assistant Physician, part time.

Miss Annie C. Porter, Clinic Manager.

*Special workers:* Dr. Marianna Taylor, Dr. Henry Norman, Dr. Dorothy Green  
Dr. Ella Prescott Cahill, Dr. Henry B. Elkind.

*Students:* Albert Hirsheimer, November 15 to December 18, 1930; George L. Young, December 19, 1930, to January 29, 1931; Edward K. Stimpson, January 30, to February 27, 1931; Milton H. Clifford, May 4 to May 16, 1931; Jacques S. Gottlieb September 29 to October 24, 1931.

During the year 1930-1931 the Out-Patient Department has continued to function as the medium between the hospital and the community, the medium through which 1,100 new patients have received advice and treatment that has helped them in making mental, social, and economic adjustments in their homes and in their communities. 195 of these cases were treated in the Division for Syphilis. Of the 905 remaining, 397 or 45% were adults, 188 or 20% were adolescents, and 320 or 35% were children. Their problems have been diverse:—personal, educational, vocational, and domestic,—involving a detailed study of the personality of the individual patient and of his environment. Many patients have received a routine examination in relation to adoption, court disposition, etc. Over one-third of the patients have been referred by social agencies. Many of these cases are taken over directly for treatment and follow-up by the Social Service Department.

Among the adults the diagnosis\* of psychoneurosis was most frequently made, 87 cases. This group forms a large part of the daily work of the clinic, since these cases are in great majority treated and followed up by the clinic. The psychoses were next in order of frequency, 77 cases. Almost all of these were referred to state hospitals, a large number being admitted to the Boston Psychopathic Hospital. The most common psychoses were the manic-depressive, 28 cases, and the schizophrenic, 20 cases. Among those of uncertain or tentative diagnosis there were 16 cases considered psychotic. Among the other psychoses there were 4 cases of general paresis, 6 paranoid conditions and 2 cases developing post-partum. There were 7 patients who were addicted to alcohol, one of whom was psychotic.

Among the adolescents and children, feeble-mindedness was again the most frequent cause for consultation. In many children brought in for conduct disorders the basis of the trouble was found to be defective intelligence. There were 78 cases found to be feeble-minded, of which 69 were children and adolescents. Besides this there were 116 cases of so-called retarded and borderline intelligence, i.e. bordering on feeble-mindedness, of which 100 were children and adolescents.

One hundred twenty-two cases tested psychometrically were rated as of average intelligence and 16 as of superior or better than average intelligence. Of these 122 cases of average intelligence 102 were children, and among the 16 superior 11 were children. Feeble-mindedness, therefore, is essentially a children's problem in the work of the clinic. Among the children examined there were 26 neurotic, 17 with reading disabilities, and 23 normal, the last mostly cases examined for adoption. A special reading disability was often found to be responsible for the child being one or more grades behind or in a special class, whereas the intelligence, rated by non-reading tests, might be normal or better. Special tutoring in reading, often very difficult to arrange in practice, is recommended for these children.

Endocrine signs and symptoms were not infrequently found, occurring especially among children, and wherever it was thought that these might indicate an active disorder, the patients have been referred to clinics at general hospitals for more detailed study, especially where such study entailed short periods of hospitalization. Ten cases have been so studied.

\*See statistical tables following.

The new law requiring mental examination of delinquent children before their commitment to reform schools became effective on April 16, 1931 (Chapter 215, Acts of 1931). Under the provisions of this chapter we have examined in the Out-Patient Department (statistical year ending September 30, 1931) 11 children, 9 of whom were girls, and 2 boys. Of this number 2, 1 boy and 1 girl, had been previously seen in the Out-Patient Department. Of these cases only 3, 2 boys and 1 girl, came directly from the courts. The remainder, 8 girls, came through social agencies, 7 from the S.P.C.C., and the other from the Division of Child Guardianship of the State Department of Public Welfare. Institutional care was advised for 5 children, 1 boy and 4 girls. Placement in foster homes was advised for 6 children, 1 boy and 5 girls.

An extra-mural function of the clinic is the survey of the Brookline schools, conducted again this year by Dr. Mary Palmer with the aid of a psychologist, a social worker, and the school nurse.

#### SCHOOL SURVEY OF BROOKLINE SCHOOLS, 1930-1931

School Clinic Staff: Dr. Mary Palmer, Psychiatrist, Mrs. Gertrude Pierce, Teacher; Miss Viola Jones, Psychologist; Mrs. Rena Dewey, Social Worker; Mrs. Ada Joyce, Visiting Teacher.

##### *Names of Schools and Number of Pupils Referred*

Baldwin . . . . . 2	Heath . . . . . 9	Pierce . . . . . 14
Cabot . . . . . 1	Lawrence . . . . . 0	Runkle . . . . . 0
Driscoll . . . . . 4	Parsons . . . . . 5	Sewall . . . . . 8
Devotion . . . . . 8	Lincoln . . . . . 28	Winthrop . . . . . 2
Total . . . . .		81

*Pupils in Survey first time:* Boys, 38; girls, 21.

*Pupils in previous Survey:* Boys, 19; girls, 3.

##### *Classification of Pupils examined for the first time on basis of Intelligence Quotient*

I.Q. 69 or less			I.Q. 70-79			I.Q. 80-89			I.Q. 90-109			I.Q. 110 and above		
M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0	2	2	15	5	20	8	9	17	13	5	18	2	0	2

##### *Classification of Pupils re-examined in 1930-1931*

I. Q. 69 or less			I. Q. 70-79			I.Q. 80-89			I. Q. 90-109			I.Q. 110 or above		
M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
3	1	4	6	2	8	5	0	5	5	0	5	0	0	0

Of the cases studied, it was recommended that 14, of whom 12 were boys and 2 girls, should be placed in a special class.

On the basis of chronological age, using age of pupil in first grade as a standard, either  $5\frac{1}{2}$  years or  $6\frac{1}{2}$  years, as the case may be:

45 pupils were approximately 2 years retarded.

12 pupils were approximately 3 years retarded.

Group showing retardation of approximately 2 years:

3 pupils had an I. Q. of 69 or less.

14 pupils had an I. Q. of 70-79.

12 pupils had an I. Q. of 80-89.

16 pupils had an I. Q. of 90-109.

19 pupils of this group showed reading disability.



Group showing retardation of 3 years:

8 pupils had an I. Q. of 70-79.

2 pupils had an I. Q. of 80-89.

2 pupils had an I. Q. of 90-109.

6 pupils of this group showed a special reading disability.

The following statistical tables are self-explanatory and deal further with the work of the clinic.

STATISTICS OF THE OUT-PATIENT DEPARTMENT

October 1, 1930 to September 30, 1931

Total New Cases . . . . .	1,100
Out-Patient Department . . . . .	905
Syphilis Division . . . . .	195

New Patients:

	Male	Female	Total
Adults . . . . .	174	223	397
Adolescents . . . . .	71	117	188
Children . . . . .	202	118	320
	<hr/> 447	<hr/> 458	<hr/> 905
Plus:			
Syphilis Patients . . . . .	86	109	195
	<hr/> 533	<hr/> 567	<hr/> 1,100

*Referred By*

	Male	Female	Total
Relatives, friends, and own initiative . . . . .	75	62	137
D. M. D., State House . . . . .	2	0	2
Boston Psychopathic Hospital . . . . .	16	18	34
Other Hospitals . . . . .	75	60	135
Private Physicians . . . . .	70	48	118
Social agencies . . . . .	123	239	362
Court . . . . .	27	9	36
School . . . . .	57	22	79
Church . . . . .	2	0	2
	<hr/> 447	<hr/> 458	<hr/> 905

*Problems*

a. *Behavior:* Larceny, misconduct, sex delinquency, temper tantrums, seclusiveness, masturbation, lying, litigiousness, running away, cruelty to animals and children.

b. *School:* Truancy, retardation, speech defect, intelligence rating, reading difficulty.

c. *Personality:* Deterioration, maladjustment in employment, irresponsibility, distractibility, lack of interest, lack of self-confidence, personality change, lack of social adjustment.

d. *Domestic:* Marital difficulty, question of re-establishing home, home situation.

e. *Vocational:* Inability to work, maladjustment.

f. *Neuropathic:* Restlessness, tic and twitching, fears, shock, hallucinations, epileptic spells, compulsions, itching, anger, somnambulism, fainting spells, exhibitionism, failing memory, drugs, depression, somatic complaints, tremors, paranoid ideas, nervousness, stuttering, feeding problem, suicidal tendencies, alcoholism, night terrors, confusion, feeling of apprehension, hysteria, enuresis, worry, inferiority complex, emotional instability, irritability, crying spells, sleepiness, finger-sucking, numbness, insomnia, screaming spells, dizziness, blank spells, nightmares.

g. *Need of routine examination for adoption, for court disposition, etc.*



*Diagnoses*

	Male	Female	Total
Psychoses:			
Senile . . . . .	1	2	3
With cerebral arteriosclerosis . . . . .	2	1	3
General paresis . . . . .	3	1	4
With other brain or nervous diseases:			
Paralysis agitans . . . . .	1	0	1
Tabes . . . . .	1	0	1
Alcoholic . . . . .	1	0	1
With other somatic conditions — puerperal . . . . .	0	2	2
Manic-depressive . . . . .	14	14	28
Involutional melancholia . . . . .	0	2	2
Dementia praecox . . . . .	14	6	20
Paranoia and paranoid conditions . . . . .	3	3	6
Psychoneuroses and neuroses . . . . .	37	50	87
With mental deficiency . . . . .	2	2	4
Undiagnosed . . . . .	0	2	2
Without Psychoses:			
Epilepsy . . . . .	5	4	9
Alcoholism . . . . .	5	1	6
Psychopathic personality . . . . .	11	5	16
Other conditions (not specified) . . . . .	5	4	9
Psychopathic personality with feeble-mindedness . . . . .	0	1	1
Constitutional psychopathic inferiority . . . . .	1	2	3
Neurotic child . . . . .	14	12	26
Parkinson's disease . . . . .	2	0	2
Encephalitis lethargica . . . . .	1	0	1
Pituitary gonad syndrome . . . . .	3	0	3
Organic brain disease . . . . .	1	0	1
Multiple sclerosis . . . . .	3	0	3
Abnormal environment . . . . .	3	16	19
Normal child . . . . .	14	9	23
Conduct disorder . . . . .	28	19	47
Defective delinquent . . . . .	1	0	1
Reading disability . . . . .	13	4	17
Facial tic . . . . .	1	0	1
Narcolepsy . . . . .	1	0	1
No nervous or mental disease . . . . .	3	1	4
Multiple neuritis . . . . .	1	0	1
Spoiled child . . . . .	3	0	3
Diagnosis deferred . . . . .	63	95	158
Uncertain diagnosis . . . . .	27	27	54
Without psychosis (referred for intelligence rating):			
Superior intelligence . . . . .	6	10	16
Average intelligence . . . . .	54	68	122
Retarded intelligence . . . . .	66	50	116
Mental deficiency . . . . .	31	43	74
Imbecile . . . . .	0	2	2
Mongolian Idiot . . . . .	2	0	2
Total . . . . .	447	458	905

*Disposition*

	Male	Female	Total
Treatment in Out-Patient Department . . . . .	145	139	284
Admitted to Boston Psychopathic Hospital . . . . .	58	49	107
Institution for F. M. advised . . . . .	5	4	9
State hospital advised . . . . .	11	6	17
Referred to general hospital . . . . .	4	0	4
Report to court . . . . .	18	7	25

Report to social agency . . . . .	206	253	459
Total . . . . .	447	458	905

*Visits*

Total Visits . . . . .	2617
Visits of New Patients . . . . .	2005
Out-Patient Department . . . . .	1810
Syphilis Clinic . . . . .	195
Visits of Old Patients . . . . .	612
Clinic Days . . . . .	299
Average attendance per day . . . . .	8

*Number of Patients and Number of Visits per Year*

Old Patients	Visits	Total Visits	New Patients	Visits	Total Visits
105	1	105	594	1	594
64	2	128	153	2	306
20	3	60	56	3	168
12	4	48	34	4	136
7	5	35	20	5	100
6	6	35	8	6	48
3	7	21	8	7	56
3	8	24	8	8	64
1	9	9	4	9	36
1	10	10	4	10	40
3	11	33	7	11	77
1	13	13	1	12	12
1	14	14	1	13	13
1	16	16	1	14	14
1	27	27	2	19	38
1	34	34	1	23	23
			2	26	52
			1	33	33
230		612	905	1810	

Clinical staff meetings presided over by the director have been held bi-weekly as before and played an important part in the study of patients, the teaching of students in medicine, psychology, social work, and nursing.

During the past year executive meetings have been held on Fridays for the discussion of cases with special reference to disposition and relationship between the clinic and referring agencies. The innovation of opening these meetings to workers in these agencies has been of great help mutually in promoting a better understanding and easier cooperation. Workers from almost all of these agencies and from special institutions and schools have been present at various times during the year.

I take this opportunity to express appreciation to Dr. A. W. Rowe of the Evans Memorial Hospital for his valuable reports of studies on endocrine cases referred by this clinic, and to call attention to the whole-hearted cooperation of the various members of the staff — physicians, psychologists, social workers, and others in the work of the clinic.

Respectfully submitted,

OSCAR J. RAEDER,

*Chief of Out-Patient Department.*

# REPORT OF THE CHIEF MEDICAL OFFICER

*To the Medical Director of the Boston Psychopathic Hospital:*

I hereby submit the report of the Medical Service.

As this is my tenth annual report as Chief Medical Officer, it seems worthwhile to summarize some of the points that seem of interest, to point out certain changes which have occurred, and to suggest changes for the future which would be considered desirable.

The general admission rate to the hospital has changed but little during the past ten years. The last year has, however, had a larger admission rate than the average. It is of considerable interest that the number of voluntary admissions has dropped from 14.8 per cent. in 1921 to .07 per cent. in 1930. This has been due largely to the legal aspects since the Massachusetts courts have made a ruling which increased the limitations upon the ability of a person mentally sick to sign a voluntary commitment paper. It should be noted, however, that the figures just quoted apply to first admissions only. The present tendency is to accept patients under the ten-day commitment paper under Section 79 of the statutes, and later to allow the patient to go onto a voluntary status if that seems proper and desirable. The result of these two conditions, however, has been to produce a marked lowering of the number of voluntary first admissions.

The past ten years have showed a marked increase of cases referred to this hospital by the courts under Section 100 of the statutes. In 1921, 3.7 per cent. of all first admissions were sent by the courts under this provision, whereas in 1930, 10.3 per cent. were so received. These figures are gratifying in that they show an increased use of this hospital by the courts, and indicate that the judges are regarding psychiatric examinations as of greater importance.

It has been noted that certain courts refer many cases who show little evidence of mental disorder and are not found to be committable, whereas other courts send in a much higher percentage of cases who are found to be committable. In checking this matter up it is found that where the services of a psychiatrist are available to the court, the selection of cases referred to this hospital shows a much higher percentage of committable cases.

Although the general activities of this hospital have increased greatly during the past ten years, the building and general equipment are unchanged. This has resulted in a great deal of crowding, has definitely limited the work of many departments and has prevented the expansion and growth of the work of this hospital in the manner which would be desired. The X-ray department represents one of the few departments which has been able to grow and expand in the manner desired. We now have a very satisfactory x-ray equipment, a full-time technician, and are able to do excellent diagnostic work. Lack of funds has hampered somewhat the use of this department. There has been expansion in the way of additional room and equipment for electrotherapy. We have installed equipment for, and are giving treatments with diathermy, ultra-violet rays and infra-red rays.

There is, unfortunately, no suitable provision for isolation of patients with infectious or contagious diseases, and without further building there seems to be no way of making such provision in a really satisfactory manner. This means that whenever infectious cases are admitted to the hospital entire wards or services or even the whole hospital must be quarantined. This prevents the transfer of patients to other hospitals and the admission of new patients, and interferes with the general routine of the hospital. There is no way of caring for sick employees except to place them on the wards with patients who are mentally sick. As there are few single rooms where such employees may be isolated, this has at times presented quite a problem.

With an admission rate of nearly 2,000 patients a year and only 100 beds available, it has been impossible to keep for further study and treatment many cases which otherwise would have been suitable to keep. When some of the 100 beds available have to be utilized for sick employees, it cuts down still further the number of beds available for mentally sick patients. With the amount of research work going on at this hospital at the present time, it is sometimes difficult to allot the beds required by the individual projects. If more beds were available much more elaborate studies could be carried out with very little increase of personnel.

During the past year Wards A and B have been open continuously and have been filled by cases of general paresis, epilepsy and stupor, as these disorders were the subject of special investigation.

Although laboratory facilities have increased, and more equipment has been added during the past year, there is still need of further equipment. The limitation of laboratory space, however, makes it difficult to find place for such new equipment, if it were obtained. At the present time the hospital needs a string



galvanometer not only for the study of heart conditions, but also for the more delicate analysis of many motor reactions. An audiometer is likewise needed.

Due to lack of space it has not been possible to offer opportunities to work at the hospital to all the doctors who have applied. The desire of the physicians to receive training at this hospital has resulted in actual saving in dollars and cents to the state, since the regular clinical staff is paid a much lower salary rate than is paid throughout the rest of the state hospital system. Many physicians have come to work on an unsalaried basis. Such an arrangement is of advantage both to the hospital and to the physicians, and it is regretted that it has been impossible to accommodate all of the physicians who have applied.

The number of social workers at the hospital is so limited that the obligatory time taken up by investigation of cases sent in by the courts leaves a quite inadequate time for the follow-up treatment and after-care of patients leaving the hospital. An increase in the number of social workers would improve the treatment and after-care of our patients.

The report of Dr. Dalton, the resident dentist, follows:

Patients examined . . . . .	1,744
Patients receiving treatment . . . . .	925
Extractions . . . . .	1,023
Fillings . . . . .	436
Prophylaxis . . . . .	235
Other treatments . . . . .	189

Dental x-rays of 50 cases: Infection found in, 22; doubtful infection, 13; negative, 15; impactions, 5; cyst, 1; rudimentary tooth, 1.

It will be seen that practically all patients admitted to this hospital receive a dental examination, and approximately half of them receive dental treatment of some sort.

The table of X-ray examinations for the year:

Month	Male	Female	Total
December, 1930 . . . . .	34	19	53
January, 1931 . . . . .	28	25	53
February . . . . .	39	28	67
March . . . . .	22	40	62
April . . . . .	37	27	64
May . . . . .	26	25	51
June . . . . .	13	7	20
July . . . . .	25	26	51
August . . . . .	28	27	55
September . . . . .	25	9	33
October . . . . .	29	25	54
November . . . . .	24	14	38
	329	272	601

	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
Skull . . . . .	24	19	27	22	26	20	9	22	20	8	18	12	227
Gastro-intestinal series . . . . .	2	5	5	3	3	0	0	2	3	6	3	1	33
Spine . . . . .	3	2	3	5	2	3	0	1	4	3	2	1	29
Hands and Feet . . . . .	4	6	2	9	7	8	4	5	3	0	3	7	58
Sinuses . . . . .	3	2	1	5	1	2	0	3	1	0	2	1	21
Pneumograph . . . . .	1	2	1	2	3	3	0	4	3	1	1	0	21
Chest . . . . .	10	12	20	22	15	13	7	14	17	9	16	12	167

Respectfully submitted,

KARL M. BOWMAN,

Chief Medical Officer.



## REPORT OF THE BIOCHEMICAL LABORATORY

*To the Director of the Boston Psychopathic Hospital:*

In the past year, there have been no essential changes in the work of the Biochemical Laboratory and the personnel has remained unchanged until this fall, when our junior chemist, Miss A. G. Campbell, left us to get married. She was been replaced by Mrs. Madeleine Bishop. The entire student-interne force has been changed this fall, and we have been fortunate to secure, as the senior interne, Dr. J. R. Frazee, who has completed his internship at the Children's Hospital and is now working in the Pathological Department of the Eye and Ear Infirmary; the other three men are medical students of the second and third year classes.

This year we have completed the study of the relationship of blood cholesterol and the low basal metabolic rates, so frequently seen in our patients. We were able to show a complete absence of correlation between these two vital figures. This work is of some slight importance as a further indication that the low basal metabolic rates in mental disease are not always dependent upon deficient thyroid function. The work on the effects of gelatine diets on the nitrogenous constituents of the blood is being slowly carried forward as time permits. This is related more closely to certain general problems of Internal Medicine than to the special problems of psychiatry. Our patients make particularly good subjects for this study and it can be organized to fill the empty time of the laboratory caused by the variation in amount of routine hospital work.

The co-operation between the clinical staff and the laboratory has been unusually satisfactory and close in the past year, and leads to the hope that in the near future we shall be able to devise some method whereby the increasing number of fellows and other graduate workers may use the laboratory in the solution of the problems on which they are engaged. It is not clear, in my mind, whether these students of psychiatry should be attached to the laboratory in every case during a certain period of their training, or whether the best method would be to require a laboratory approach to some problem as a portion of their training. This could be done in two ways, either by insisting that they do the laboratory work themselves, or by the utilization of the present laboratory personnel in acquiring such data as they need.

It seems fairly obvious that psychiatry has outgrown the purely observational and classificatory stage and is now entering the group of experimental sciences. Many leads have been secured as to the connection between the various physiological mechanisms and the psyche. It seems to us that our graduate students in psychiatry should be more than encouraged to get at least a glimpse of the experimental field. As it is now organized, the laboratory is more than ever capable of providing the necessary facilities, with certain definite restrictions of space. If such a plan were to be decided on, adjoining space originally intended for laboratory purposes might be made available.

Staff for the past year has been:

Junior Chemist — A. G. Campbell,

Student Internes — George Salter, Ernest Joy, George Krinsky and Jacques Rosemann.

Respectfully submitted,

G. PHILIP GRABFIELD, M.D.,

*Chief of Biochemical Laboratory.*

## REPORT OF THE PSYCHOLOGICAL LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

From the standpoint of psychometric techniques the chief accomplishment during the year has been the completion of the previously mentioned revision of the Army Alpha test. With the continued cooperation of the laboratory personnel and of the printing department at Gardner the five forms are now available in the revised status. The Psychological Corporation is undertaking arrangements for their publication.

Among non-language pencil and paper tests the Army Beta shares with Army Alpha peculiar advantages in respect to standardization. Its original layout made administration, except on a large scale, extremely difficult. A means was devised in the laboratory which renders it easily applicable to individuals and small groups.

It is a very satisfactory, not to say economical, substitute for the ordinary "performance" techniques in cases of language difficulty; it is also most probable that it reaches other intellectual qualities than does Army Alpha, though its interpretation at this level is still quite unclear.

In respect to research, Mr. Beck continues his work with the Rorschach test, and Miss Viola Jones develops her interest in the problems of the pre-school child, and of reading difficulties. Mr. Atwell is investigating a possibility of shortening the Alpha examinations without sacrifice of validity. It has seemed unwise for the writer to undertake new projects in research until conditions should permit fairly complete digestion of the considerable research material already gathered. This has been described in previous reports, it is concerned mainly with learning functions, and has educational and re-educational bearings. Little progress in this direction has been made during the past year, or is in immediate prospect, with the present limitations of space and personnel. Energies have been turned rather towards development of teaching functions in the laboratory. A number of sessions on psychological topics relevant to their interests have been held with the medical staff and with members of the psychological and social service staffs, which it is planned to continue. Certain special teaching devices are being developed. There is little doubt that in the existing circumstances this is the better utilization of the laboratory's resources.

The lack of quarters adjusted to the growing functions of the department as hampering not only its immediate and special activities, but also its proper co-operation with other research prosecuted in the institution in which the factor of experimental psychology is important, was made the subject of a special memorandum submitted to the Medical Director on June 22, 1931. An increasing tendency is also apparent, for outside agencies to call on the institution for its psychometric resources in and for themselves. As this interferences with the regular service of the laboratory to the hospital it has been possible to meet this demand only in a very limited way. It is, nevertheless, a reasonable demand, as there is genuine need for such service among social agencies whose resources do not permit the employment of a competent examiner in their own organization. The demands of the school survey also constitute a serious drain on the intramural service which the laboratory can render. The satisfactory meeting of these conditions requires the addition to the laboratory staff of a psychologist (not psychometrist) of some experience in child psychology whose primary responsibility would be to care for the various extramural demands on the institution, of a psychological nature.

There has been the usual participation in conferences of national scope concerned with psychological or mental hygiene matters. Mr. Beck has considerable editorial responsibility for the *American Journal of Orthopsychiatry*. The laboratory continues its cooperation in *Psychological Abstracts*, the *Psychological Index*, and the *Child Development Abstracts*. Official relations to the Division of Psychology and Anthropology of the National Research Council, the Psychological Corporation, and the National Institute of Psychology, continue substantially as heretofore. Some committee work is being carried on for the Social Science Research Council.

As to changes in the laboratory staff, Mr. S. J. Beck continues as psychologist and Miss V. M. Jones as psychometrist. Miss Albertine Ragsdale resigned as psychometrist on September 19, 1931, and Mr. C. R. Atwell was appointed in her place.

Publications have been as follows:

- BECK, S. J. "Personality Diagnosis by Means of the Rorschach Test." *American Journal of Orthopsychiatry*, 1930, Vol. 1, No. 1, 81-88.
- BECK, S. J. "The Rorschach Test in Problem Children." *American Journal of Orthopsychiatry*, 1931, Vol. 1, No. 5, 501-511.
- BECK, S. J. and LEVY, D. M. "The Rorschach Test in Manic-Depressive Psychosis." *Manic-depressive Psychosis*. Volume XI, Pp. 167-181, Research Publications, Association for Research in Nervous and Mental Disease. Baltimore: Williams & Wilkins Company, 1931.



WELLS, F. L. "Comparative Psychology and Mental Hygiene." *American Journal of Orthopsychiatry*, 1931, Vol. 1, No. 4, 400-405.

WELLS, F. L. Review of "Culture and Progress" by W. D. Wallis. *Journal of Philosophy*, 1931, Vol. 28, No. 20, 550-557.

Respectfully submitted,

F. L. WELLS,

*Head Psychologist.*

## REPORT OF THE NEUROPATHOLOGICAL LABORATORY

*To the Director of the Boston Psychopathic Hospital:*

As has been the custom since 1914, the autopsies and bacteriological work for the hospital have been done by the Pathologist and Student Interne for the Department of Mental Diseases who are quartered here. The greater part of the autopsy work for the year has been done by Dr. Marjorie Fulstow, December 1, 1930-August 31, 1931, but since her resignation, by the writer.

There have been in the period of this report, — December 1, 1930, to November 30, 1931, 26 deaths in the hospital — a decrease from the three previous years. Fourteen of these have been autopsied (two by the Medical Examiner), a percentage of 53, the same as last year. The two done by the Medical Examiner showed pneumonia in one case, and the other nephritis; the first after an attempt at suicide, the second following some exogenous poison. Twelve other autopsies were performed by the Department's Pathologist or ones substituting therefore; infections of one sort or another (tuberculosis in one) accounted for five; brain tumor two, and one each were due to hydrocephalus, general paralysis of the insane (with massive cerebral hemorrhage), rupture of aorta, chronic nephritis and spontaneous cerebral hemorrhage.

The specimens preserved are used in demonstrating to staff and nurses. A visit of the group of nurses was made to the Warren Museum where brain anatomy was explained.

Mr. Aage E. Neilsen, the interne in bacteriology, reports: blood cultures, 40; cultures from other body fluids or exudates, 11; smears, 14; Widal tests, 2.

Respectfully submitted,

MYRTLE M. CANAVAN,

*Pathologist, Department of Mental Diseases.*

## REPORT OF THE DEPARTMENT OF THERAPEUTIC RESEARCH

*To the Medical Director of the Boston Psychopathic Hospital:*

This year has seen our research on stupor progress to a place where it is ready for publication. The work on this study is under the direct supervision of Dr. Frank d'Elseaux, a Commonwealth Fellow in Psychiatry, who has devoted not only this year, but the preceding year to this work. Associated with him is Miss Peterman, technician, and in addition a great deal of assistance has been rendered by many members of the hospital staff.

In the limited space allowable in the annual report, only the barest outline of this work can be given. It has been shown that certain patients with what may be called stupor in the broader psychiatric use of the term, may be aroused from an inactive, mute state by breathing high concentrations of carbon dioxide. The first point to be determined was what physiological effects were produced in the patient. This study has given rather a complete picture of the changes in the hydrogen ion concentration of the blood, both arterial and venous, the carbon dioxide, tension, the oxygen combining power, the lactic acid formation, the effects on pulse, blood pressure, respiration, and temperature. The study of these factors has led to a number of interesting physiological observations, which will be described in detail in the appropriate place. It may be stated here, that none of the factors studied are in themselves a sufficient explanation of the psychological phenomenon that follows the treatment. As a brief example, the following may be noted.

With a high concentration of carbon dioxide, the patient is thrown into and acidotic state with the  $P_h$  of the blood dropping as low as 6.89. Nevertheless, it has been shown that with similarly low  $P_h$ , the effect on the mental status of the patient may be relatively unimportant, while with a  $P_h$  that is higher, the effect

may be much greater. In the further course of the study, it was shown that when the patient was made relatively alkalotic by ingestion of sodium bicarbonate, an even more striking improvement in the mental symptoms over a longer period could be obtained. In summary, it may be stated that the results of our studies, as far as getting a knowledge of the factors producing the change in mental status of the patient, may be said to be completely negative. However, this work has, in our opinion, entirely disproved a number of hypotheses that have been advanced, and in this way has reduced the confusion and clarified the issue. A considerable amount of work on the lines already undertaken remains to be finished.

Not the least important result of this study has been the development of a well-equipped and well-functioning biochemical laboratory prepared to handle the various researches of the hospital staff.

The studies in the treatment of epilepsy have met with the usual difficulties incident to this problem. We are not able to report any great therapeutic achievement, nor any fundamental discoveries. Nevertheless, a number of important and interesting observations have been accumulated which will form a basis of therapeutic procedures that can be carried on in patients not kept in a hospital. The work has been done almost exclusively on a very few patients kept for many months under careful control, and studied as to the effect of dehydration, acidosis, produced by chemicals and diet, alkalosis, and to a limited degree, starvation. Studies of this sort require a great deal of time, and as yet we are hardly more than well started. We expect to continue this work over an indefinite period.

In the treatment of neurosyphilis, a new procedure introduced this year is the use of diathermy to produce fever. We have been fortunate enough to acquire a recent model of a diathermy apparatus more efficient than any heretofore available, through a grant from the DeLamar Mobile Research Fund of the Harvard Medical School. A diathermy machine producing a very high amperage will produce a fever in patients, the height of the fever being controllable within a fraction of a degree. A temperature of 104 to 105 degrees may be produced by this apparatus in the course of an hour and a quarter to an hour and a half. Fever treatment, which has been shown to be quite effective in the treatment of certain types of neurosyphilis, is thus available at all times. The first question is the relative efficiency of fever produced in this manner and fever produced by malaria. We are not in a position to answer this problem as yet, but there is ample evidence that the diathermy method has a high therapeutic value. It would appear that there are advantages and disadvantages in any of the methods of fever production that are now available, but it is also certain that the diathermy method adds another very useful and effective aid in the treatment of neurosyphilis.

Aside from the first and major problem of the therapeutic value of this procedure, a number of interesting associated problems are being studied, as for instance, the effect on the basal metabolic rate and the value of certain anti-pyretic drugs.

At the same time that these studies are being made, the studies of the various other methods in the treatment of neurosyphilis continue, namely, fever produced by malaria and typhoid vaccine, the use of tryparsamide and the arsphenamines, and other anti-luetic drugs. As has been stressed in previous reports, the understanding of proper treatment methods requires many years of carefully collected and tabulated experience. The therapeutic results now obtainable are sufficient justification for work of many years that has been done in this Department. For instance, it seems to be a reasonably conservative statement that at least one-third of the cases of general paresis receiving treatment at the Boston Psychopathic Hospital make an improvement sufficient to allow them to take up their normal place in the community once more. In addition to this, many other patients are very greatly helped.

In the prosecution of this work, a rather large clinic has grown up, and a few figures may be given to indicate both the size of the clinic and its growth. During the statistical year of 1930, 347 individuals made 3,527 visits to the clinic. During the statistical year of 1931, 434 individuals made 5,106 visits to the clinic. The individuals referred to above fall into two groups, first, those who are under treatment; and secondly, those who came for examination, the latter group representing the contacts of the clinic, patients who have been in a position to have been infected



by syphilis. Of the 434 individuals enumerated as having visited the clinic during the year, 267 fall in the group of patients receiving treatment, and these individuals made 4,889 visits, while those who came for examination number 167, and made 217 visits.

Increased attendance at the clinic is to be explained in slight degree by the economic depression, and to a very much greater degree by the increase in efficiency of treatment methods and to no little extent by the better handling of patients. In dealing with a clinic of this sort, one is faced with a very different situation than in a clinic which deals with more acute illnesses. Patients are of necessity required to continue their treatment at frequent intervals over a period of years. It is therefore most essential, both from the standpoint of the patient treated, and value of records and information obtained from the study of the patients, that they be followed over a long period of time. This has been made possible by the excellent work of the Social Service Department. The social worker attached to this clinic manages the clinic details which include supervision of the running of the treatment clinic, the arrangement for admission of patients to the hospital for prolonged treatment or for temporary care following lumbar puncture, and it is also her function to obtain permits for special types of treatment, to see that the patients return to the clinic at the proper time, and to assist patients and their families in the various ways which fall under the functions of social case work.

It is our earnest endeavor to keep in close contact with our patients and to lose sight of as few as possible. It is our policy to keep cases on our list for a long period, rather than to discontinue them on the basis that they have lapsed from the clinic. This policy obviously increases the total number of cases listed as lapsed, and makes a poorer showing in the percentage of cases returning to the clinic. Taking the figures for the past year, in a total of 437 treatment cases carried, the average number of lapsed treatment cases per month is 175; the average number of lapsed cases followed monthly by the social worker is 46 or 26%; and the average number returned to the clinic monthly is 18 or 39% of those followed.

The following shows the figures for the current year:

Total new treatment cases . . . . .	73	
Total lapses treatment . . . . .	54	
Total followed by worker . . . . .	54	(100%)
Total returned to clinic within two months, . . . . .	50	( 92%)
Still lapsed . . . . .	4	( 8%)

The importance of examining the families of our syphilitic patients has been stressed in previous reports. This endeavor has been continued this year, and a comparison of the figures of this year and the preceding year indicate with what success. In the year 1929-30, 197 relatives were examined, whereas in the year 1930-31, 317 relatives were examined, showing an increase of 59%. The high degree of success in getting individuals in for examination is indicated by figures for the statistical year. There were 339 relatives of patients desired for examination, and of this number, 311, or 91% visited the clinic and were examined.

Another aspect of the work of the social service department is the handling of syphilitic patients who are not to be treated in our clinic. It is our aim to see that these patients secure the proper treatment. It has been found that merely referring the patient to a clinic or physician's office is not sufficient, and it is therefore part of the service rendered to these patients to see that they actually arrive at the clinic or physician's office, and that information concerning them is placed at the disposal of those who are to care for the patient.

The supervision of this part of the hospital social service work has been under the charge of Mrs. Maida H. Solomon, and the work has been carried out by Miss Ruth Epstein.

The following table gives a resumé and picture of work done in the syphilis clinic:

	Total
1. Total cases active on first of year . . . . .	673
Clinic register . . . . .	364
Syphilitic non-treatment cases . . . . .	79
Relatives for follow-up . . . . .	230

2. New cases and readmissions . . . . .	557
Clinic register . . . . .	73
Syphilitic non-treatment cases . . . . .	138
Relatives for follow-up . . . . .	346
3. Total cases closed this year . . . . .	722
Clinic register . . . . .	171
Syphilitic non-treatment cases . . . . .	186
Relatives for follow-up . . . . .	365
4. Total cases remaining active . . . . .	508
Clinic register . . . . .	266
Syphilitic non-treatment cases . . . . .	31
Relatives for follow-up . . . . .	211
5. Visits made by 434 persons . . . . .	5,106
By 267 persons to clinic for treatment . . . . .	4,889
By 167 relatives for examination . . . . .	217
6. Total treatment given 267 cases . . . . .	4,399
Arsphenamin . . . . . 596	Mercury . . . . . 12
Bismuth . . . . . 373	Neoarsphenamin . . . . . 76
Diathermy . . . . . 149	Sodoku . . . . . 1
Drainage . . . . . 2	Tryparsamide . . . . . 2,957
Intraspinal . . . . . 19	Typhoid vaccine . . . . . 142
Malaria . . . . . 64	Ventriculographies . . . . . 8
7. Diagnostic lumbar punctures . . . . .	1,079
Per cent of families followed who were examined . . . . .	79%
Per cent of relatives followed who were examined . . . . .	91%
Per cent of families examined showing evidence of syphilis . . . . .	18%
Per cent of relatives examined showing evidence of syphilis . . . . .	10.9%

The work with the epileptics and syphilitics has been carried on by Dr. S. H. Epstein, and during the latter part of the year he has had the assistance of Dr. I. Kopp.

In all the work carried on by this Department, the greatest assistance has been obtained through the cooperation of almost the entire staff of the hospital, which is gratefully acknowledged. A large percentage of the funds required to carry out our investigations has been made available by the Division of Mental Hygiene of the Department of Mental Diseases. We have also been helped by funds secured from the DeLamar Mobile Research Fund of the Harvard Medical School, from the budget of the department of Psychiatry of the Harvard Medical School, and the Joseph M. Herman Research Fund.

Respectfully submitted,

HARRY C. SOLOMON, M.D.,

Chief of Therapeutic Research.

## REPORT OF THE CHIEF EXECUTIVE OFFICER

*To the Medical Director of the Boston Psychopathic Hospital:*

The routine executive work of the Boston Psychopathic Hospital is probably less stereotyped than that of any other mental hospital in the country. Almost daily some unprecedented problem relative to the reception, retention or dismissal of a patient arises. To synchronize the humanitarian, legal and sociologic aspects of many cases requires tact, experience and some imagination. With an annual turnover of around two thousand cases and a daily average population of less than eighty-four, there arise frequently problems to tax the facilities of the most ex-

perienced. This hospital has been very fortunate during the past year to have had an Assistant Executive and Clinical Staff of high efficiency, so that no serious complications have arisen. In this connection, the ward personnel should not be forgotten. They have functioned with unusual faithfulness as shown by the record of no suicides and very few serious accidents. Not a single incident is recalled where relatives of patients have lodged a complaint of rough handling or other abuses. The employment of student nurses from general hospitals as affiliates has passed the experimental stage, and is now a proven success.

In the matter of appropriation for maintenance, the hospital has been unusually fortunate during the past year. The falling price of commodities has permitted a more liberal dietary, and there is a substantial unexpended balance under food. Some of this money has been transferred for the needed purchase of house furnishings. Under Personal Services, there is also a considerable balance, although the usual quota of employees has been maintained throughout the year. The only item in which the appropriation fell short of actual needs was Medical and General Care. Under this item, as in years past, there were not sufficient funds to purchase all the X-ray films and special therapeutic agents requested by the medical staff. This interfered in no way with routine diagnostic procedures or usual treatment, but did prevent the carrying out of some special research projects.

Gradual improvement in the building has been continued. Sections unpainted for several years have been made much more attractive and sanitary. Over four hundred doors, without face casings since erection of the building, have been cased, doing away with much crumbling plaster. Five tons of band iron have been fitted about the top of flush base boards, supplying an important need overlooked by the builders. Several other important items under repairs and renewals have been completed during the year. The physical condition of the building is, however, far from satisfactory in many respects, and a general renovation could well be considered.

As stated in previous reports, the activities of the Boston Psychopathic Hospital have far outgrown the physical limitations of the plant. This is especially true as regards the laboratory facilities, record department, and housing of employees. Nearly every other department has inadequate space. The building of an addition to the present plant, or the erection of a separate building to house employees, should be given immediate consideration.

It is hoped that the foregoing will not be misconstrued as an intimation that the Boston Psychopathic Hospital is a battered and tottering hulk, or that it is not fully abreast with the times as a scientific institution. This report is intended principally to call attention to certain deficiencies, and not to review the excellent work that has made this hospital internationally famous.

Opportunity is here taken to express appreciation for the continued loyalty of the hospital personnel, and to thank the Medical Director, Board of Trustees and the State Department of Mental Diseases for encouragement and support.

Respectfully submitted,

ARTHUR M. BALL,

*Chief Executive Officer.*

## REPORT OF THE SOCIAL SERVICE DEPARTMENT

*To the Medical Director of the Boston Psychopathic Hospital:*

Fortunately during the past year there have been very few changes in the personnel of the Social Service Department. On November 30, 1930 Mrs. Anne G. Beck, who had been with the department since June 25, 1929 resigned because of transferral to the Research Social Service Department. In March, 1931, her place was filled by Mrs. Ruth Kozol, a college graduate who had had partial training at the Simmons School of Social Work and at the McLean Hospital. The long delay in appointment was due as in previous years to the fact that there was no social service list available at the Department of Civil Service. An examination had been given in November but because of the large number of competitors a list could not be compiled for several months.



In September, 1931, Miss Alice Fellows and Miss Louise Silbert, students at the Smith College School for School Work, came to begin their nine months of field training as partial fulfillment for their degree of Master of Science.

On December 1, 1930, the social service group working under the special research Fund on the study of pre-psychotic personalities, changed somewhat in personnel and in distribution of time. Miss Harriet Parsons, who had been with the group for two years resigned, her place being taken by Mrs. Beck, mentioned previously. Miss Louise Voe, a graduate of the Smith College School for Social Work, who had trained at the Boston Psychopathic Hospital was added to the staff on a full-time basis. Having received the Master of Arts degree in the fall of 1930, Miss Zitha Rosen and Miss Grace Finn-Brown who had been with the research group for two years were able to give full-time to the purposes of the research. A few months later Miss Barbara Ashenden resigned and there were no additional appointments made. During the year emphasis was placed on the study of the influence on the psychosis of environmental factors. Such questions as the effect upon the patient of having to live in an alien religious group, or an alien color group, or an alien moral group, of having employment which was disagreeable and arduous, were discussed, analyzed and arranged for coding. These problems were found to be extremely difficult to evaluate as, for instance, it was hard to distinguish whether the job itself was the cause of the breakdown or whether it was the patient's reaction to it. Would another person in the same situation find the job distasteful, uncongenial, upsetting? Attention also was paid to the effect on the psychosis of an acute environmental stress such as a bereavement, financial disaster, being jilted. Are such situations more disturbing than chronic environmental strain such as marital maladjustment, poverty, etc.? As the code sheet of the environmental factors has been prepared only within the last few months there is no report available at present as to the results. Although depleted in personnel the research group will continue for a year longer and may then have some material to publish.

As a result of the few changes in the staff of the regular department, the routine work has been handled fairly adequately, although it is always impossible for the small department to handle all the cases known to the hospital and the out-patient department. Instead of assigning cases on rotating basis as is the custom of the medical staff it has been found that the volume of work is increased by assigning certain duties and types of cases to certain workers who have developed special skill in the handling of their particular tasks. One worker is in charge of the admission desk of the out-patient department. While she does not have time for much intensive case work she comes in contact with all of the patients who come to the out-patient department and because of her training is able to sense social problems which are handled either by other members of the social service department or sent to other agencies. Another worker spends her time in the clinic for the neurosyphilitic cases and carries on home visiting and treatment for a selected group. A third worker is in charge of the cases sent by the courts of metropolitan Boston for psychiatric study before trial or before sentence. The other two regular workers and the students have been carrying rather small case loads, spending a good deal of time intensively on a few cases. One worker has been much interested in the psychiatric social problems occurring in mother-adolescent daughter situations, where there have been many conflicts over the social behavior of the daughter which conflicts with the mother's idea of correct conduct. The other has concentrated on the difficulties which children of normal intelligence have when they have a special reading disability. She has even spent time on the tutoring of the children. Such procedure may seem foreign to the regular duties of the psychiatric social worker but in each instance it has seemed the best way to restore to the child a feeling of security and confidence in himself.

C.H., a boy of 8, with an Intelligence Quotient of 110 had had difficulty in reading for three years. At school he was considered as "a bad one who would not learn and who deliberately caused mischief." Outside of school on the playground he was a leader. He was particularly humiliated when he had to read orally in class and lost some of the prestige he had gained outside of school. His family also were ashamed of his poor scholarship. Through tutoring as well as case work with the family the social worker was able to



save his sense of failure by enabling him to read more smoothly. By spending time on special instruction she was able to show the family that he was worthy of special attention. In addition, she demonstrated to the teacher the close relationship between academic maladjustment and misbehavior.

Year by year the number of cases sent by the courts to this hospital has increased. Many are difficult to diagnose and require careful investigation. Even though several days are spent on each case the worker frequently feels that her knowledge of the case is incomplete, that she has had little opportunity to reconstruct the life picture of the patient. Ideally she should have as much time to spend on each case as the research group has found necessary, namely at least a week, but unless the social service staff is increased greatly in personnel such is impossible. Again there are not enough workers to supervise cases after discharge. Even though the patient is found to be non-psychotic he has been maladjusting socially or he would not have been arrested. The knowledge gained during his hospital residence of the forces which lie back of the arrest comes to naught if it cannot be used to help the patient to adjust after discharge. The Assault and Battery cases illustrate well the above point. Seldom is the patient found to be suffering from a psychosis but a complicated marital situation is unearthed which has been existing for many years, which has its roots deep in the sexual incompatibility of the patient and his or her mate, demonstrated overtly by much quarrelling, nagging, disputing, drinking, non-support, etc. The home atmosphere is extremely bad for the children. Unwilling to live apart, as neither wishes to give up the children and does not consider the other a fitting guardian for the children, the adjustment has to be made in the home. While few of these cases can be solved adequately the tension is lessened when there is intensive supervision over a long period of time.

Frequently on return to court the case is dismissed and the defendant found not guilty. Then there is no one to supervise unless it is the psychiatric social worker. During the last year the social service department was able to supervise a few such cases, the nature of which is illustrated by the following record.

P.C., a woman of 30, was sent to the hospital by the court following arrest on the charge of forgery. When the case came to trial it was discovered that the patient's adoptive mother was the complainant. She accused the patient of signing her name to checks. As the patient had been in the hospital once before because of "nervous indigestion" she was returned to the hospital by the court for observation. Investigation showed that the mother believed the patient guilty because she herself had received messages through the air testifying against the patient. Psychiatric examination indicated that the patient was not psychotic and of normal intelligence. She had been under the complete dominance of her mother since early childhood, could never remain out of the house after eight o'clock at night without the mother complaining to the police. During the last two years however, patient had become disillusioned and more rebellious. She refused to accede to all her mother's demands. The latter had consequently become angry with her and even though the patient had always conducted the business of the family saw fit to bring the charge of forgery against her. The patient was returned to court as capable of standing trial.

In addition to the formal report sent by the hospital the social worker was present to give information regarding the adoptive mother's oddities. As a result the court sent the mother to the hospital for examination and continued the case of the patient. The mother was found psychotic because for many years she had believed that people wished evil thoughts upon her, causing pains in various parts of her body. She also had received spirit messages. She was not committed because from the point of view of committing physicians she was able to live in the community.

When the case came to trial again the mother withdrew her complaint against her daughter and the case was dismissed.

As there was no probation officer to supervise the patient and as it seemed inadvisable for the patient and her mother to continue living together the case was placed under the supervision of the social worker who had been present throughout the court trials. As the patient had so long been under the will

of her mother she was found to be very childish and submissive with little ability to think independently. The social worker was in daily contact with her for a number of weeks until gradually patient became more independent, was able to find board and room for herself and a small job.

At this time of unemployment and industrial depression social workers are asked constantly whether their case loads have increased in number and whether there has been any marked effect upon the client's personality. In this agency there seems to have been no appreciable increase in the admission rate in the outpatient department and the hospital but there have been a great number of strains and tensions in the family situations. Cases which have come to the clinic as problem children have proven difficult from a treatment angle because of the fact that the father is out of work and for the first time has needed relief. He does not understand the regulations of welfare departments and the apparent cold-heartedness of the dispensation of relief and needs the sympathetic help of the psychiatric worker in adjusting to his new problems. Money alone does not seem all that he needs. Child placement agencies are unable to place problem children during the rehabilitation period of the parents unless the parents are able to aid financially.

Perhaps the greatest need has been that of a number of women between twenty and thirty years of age who, trained for clerical work, can now find only temporary housework. The adjustment to "living in", longer hours, the fear of losing the position have created attitudes which can be helped only through a great deal of counsel and psychiatric aid.

The co-operative service with the agencies still continues. Last year the social service department presented to the supervisors of the Family Welfare Society two cases which were discussed by Dr. Ives Hendrick, psycho-analyst. The head social worker conducted a round table for the Division of Children's Workers under the Staff Council on the psychiatric social implications of illegitimacy.

During the past year small sums of money which had been received as fees by a Fellow who had analyzed several patients were given to the department and used in some of the following ways. A girl of 11, a case of persistent enuresis and car-sickness, who was scolded constantly by her family because of her flaws was given roller skates so that she might receive attention from her playmates and gain back some of the self-confidence which she had lost. A trumpet was rented for a feeble-minded boy so that he would not spend so much time playing with undesirable boys and also that he might play in the school orchestra and gain recognition which he could not obtain in his academic work. Several other patients were sent to camps and rest homes.

At this time I should like to express appreciation of the excellent co-operation given this department by all members of the staff and especially the retiring Executive Officer, Dr. Arthur Ball.

Respectfully submitted,  
ESTHER C. COOK,  
*Head Social Worker.*

PUBLICATIONS

A Study of One Hundred Cases Discharged "Against Advice" from the Boston Psychopathic Hospital. Jacob Kasanin, M.D. and Esther C. Cook. *Mental Hygiene*, Vol. XV, No. 1, January, 1931, pp. 155-171.  
Ways of Meeting Resistance. Esther C. Cook. *The Social Worker*, October, 1930.

SOCIAL SERVICE STATISTICS

I. Numerical Summary:

	Male		Female		Totals
	Children	Adults	Children	Adults	
New cases . . . . .	160	292	82	240	774
Renewed from previous year . . . . .	30	13	11	16	70
Continued from previous year . . . . .	18	33	17	26	94
<hr/>					
Total carried during year . . . . .	208	338	110	282	938

	Closed during year . . . . .	178	320	90	247	835
	Continued to following year . . . . .	30	18	20	35	103
II.	Sources of New Cases:					
	House . . . . .					337
	Out-Patient Department . . . . .					229
	Research . . . . .					121
	School Survey . . . . .					87
	Sources of Continued Cases:					
	House . . . . .					39
	Out-Patient . . . . .					45
	Research . . . . .					10
	Sources of Renewed Cases:					
	House . . . . .					16
	Out-Patient . . . . .					37
	Research . . . . .					9
	School Survey . . . . .					8
III.	Analysis of Work on All Cases:					
	Number of histories . . . . .					213
	Number of investigations . . . . .					252
	Number of patients on visit from hospital books . . . . .					101
	Patients visited by Social Service:					
	On visit (exclusive of Syphilis Service) . . . . .					17
	All others (including House cases which have been discharged into the Community and Out-Patient cases) . . . . .					360
	Number of visits pertaining to the supervision of patients in the community, either ex-House cases or Out-Patient cases (does not include visits made during course of investigation) . . . . .					803
	Number of visits to patients on wards . . . . .					301
	Placements by Social Service:					
	1. Unable to place . . . . .					40
	2. Number placed . . . . .					37
	Unclassified . . . . .					86
IV.	Outstanding Social Problems:					
	Diseases:					
	Mental . . . . .					415
	Physical . . . . .					148
	Personality problems, including temperament, vacillating interests, instability, etc. . . . .					306
	Legal problems, including larceny, assault, forgery, etc. . . . .					128
	Sex problems . . . . .					114
	Environmental:					
	Financial difficulties . . . . .					158
	Employment . . . . .					97
	Marital difficulties . . . . .					95
	Unsuitable surroundings, broken home, friction in the home, in- adequate physical surroundings, immoral parents . . . . .					247
V.	Miscellaneous:					
	Expense account . . . . .					\$535 66

#### SOCIAL SERVICE STAFF

*Head Social Worker:* Esther C. Cook, July 1, 1928.

*Assistants in Social Service:* Anne G. Beck, June 25, 1929 — resigned November 29, 1930; Rena Dewey, August 25, 1930; Ruth Kozol, March 25, 1931; Annie Porter, October 13, 1930; Clara Swain, October 1, 1930.

*Syphilis Follow-up Worker:* Ruth Epstein, September 30, 1930.



## REPORT OF THE PRINCIPAL OF THE SCHOOL OF NURSING

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith present the annual report of the nursing department for the year ending November 30, 1931.

*On nursing service* — Principal of the School of Nursing, 1; Assistant Principal of the School of Nursing, 1; nurse instructor (full time), 1; female supervisor (night), 1; male supervisor (day), 1; assistant supervisors, 2; head nurse, operating room, 1; head nurses, wards, 7; assistant head nurses, 2; student nurses, 14; hydrotherapists, 2; female attendants, 8; male attendants, 14.

*Head nurses resigned* — Miss Margaret de Grouchey and Miss Helen Brougham.

*Head nurses appointed:* — Miss Ann Pease, a graduate of the Winchester Hospital and Miss Elizabeth Higgins a graduate of Newton Hospital. These nurses have taken the affiliated course here.

During the year we received 57 student nurses and 1 graduate nurse for the three months course in psychiatric nursing.

*Special nursing* — Number of special nurses, 13. Total number of weeks in wards, 26.

Miss Marion Jones a graduate of the Ellis Hospital, Schenectady, New York, completed a three months post-graduate course here and later accepted a position as head nurse, while Miss Olia Butler was on a leave of absence due to illness.

Mr. Thomas McHugh, male nurse in charge of Ward A took a course in electrotherapy at Worcester State Hospital and has assisted in giving 130 diathermy treatments to our neuro-syphilis patients.

*Hydrotherapy:* tonic baths, patients 220; foot baths, 542; salt glows, 783; electric light baths, 492; sitz baths, 216; saline baths, 165; hot and cold to the spine, 143; tub shampoos, 557; hair shampoos, 470; needle sprays, 3,041; fan douches, 3,041; jet douches, 1,005; rain douches, 481; scotch douches, 51. Continuous baths: No. of patients, 329; Number of baths, 1,448; Number of hours, 8,923. Wet sheet packs: Number of patients, 38; number of packs, 61; number of hours, 153½. Instruction in wet sheet packs, continuous baths and tonic baths was given to 57 student nurses. Number of lessons 951; number of hours, 951. Instructions in wet sheet packs was given to 21 male attendants. Number of lessons, 63; number of hours, 63.

There has been a marked increase in the number of physically sick patients admitted to the hospital during the present year, which has taxed the nursing staff to the utmost. A great many of these patients during the acute illness had to be specialized by student nurses. Again I must emphasize the need of a nurses home, which would enable us to accept more student nurses, and the problem of caring for these patients could be met in a more satisfactory manner, with little expense to the hospital, as some of the student nurses receive no salary.

We discontinued affiliation with the Winchester Hospital in November and started an affiliation with the Lynn Hospital. We have also accepted two more student nurses from the Faulkner Hospital.

We have added ten hours of psychology (mental adjustments) to the nursing curriculum. We are indebted to Dr. F. L. Wells for this contribution to our lecture course.

I wish to thank the Director and executive staffs for their encouragement and kindly support, the medical staff for the splendid spirit shown in giving so much of their time in lectures to the student nurses, and all the employees on the nursing service for their co-operation and loyalty.

Respectfully submitted,

MARY FITZGERALD, R. N.,

*Principal of the School of Nursing.*



## REPORT OF THE DEPARTMENT OF OCCUPATIONAL THERAPY

*To the Director of the Boston Psychopathic Hospital:*

During the year the Occupational Therapy Department has carried on its usual activities, providing work for all house patients who are able to come to the work rooms, where as far as possible, each is given work to suit his individual need. With the short term patient, the most that we can hope to accomplish is the establishment of confidence and of a realization of his relationship to the routine of the hospital. It is with the long term patient that we can work out a more constructive program.

For several months in the year, we have with us students from the Boston School of Occupational Therapy, who receive part of their training with mental patients in this department, and it is while they are with us, that more regular and specialized work is possible with the patients on Ward 3, under the supervision of the assistant. From the therapeutic point of view this first contact with the patients is most valuable and if they are later brought to the work rooms, makes for a more co-operative attitude.

We have also continued to give a short period of training to the affiliated nurses. This is necessarily brief but we try to give them some insight into the rudiments of the work.

The recreational side of our program has taken the form of holiday dances in the Assembly Hall and informal parties in the Sun Room of the Department, at some of which moving pictures have been shown.

This report would certainly be incomplete if it failed to pay tribute to the long and faithful service and highly skillful management of its former head, Miss Ethelwyn F. Humphrey, whose resignation and marriage took place in the summer. On the marriage of her assistant Miss Dorothy Hayden, the personnel of the Department entirely changed.

Since their departure, Miss Elizabeth Gustafson a graduate of the Boston School of Occupational Therapy in June served as a temporary assistant for seven weeks followed by Miss Genevieve Maynard, a graduate of the Boston School in 1930 and with a year's experience in the Boston State Hospital.

The statistics of the Department are as follows:

Attendance — Women — average attendance, 20; total enrollment, 609.

Attendance — Men — average attendance, 19; total enrollment, 617.

Articles made, 1,584. forms printed, 18,425.

Respectfully submitted,

ALICE E. WAITE,

*Head Occupational Therapist.*

## PUBLICATIONS FROM THE CLINICAL SERVICE AND LABORATORIES

BECK, S. J. — Personality Diagnosis by Means of the Rorschach Test. *American Journal of Orthopsychiatry*, Vol. 1, No. 1, 81-88, 1930.

BECK, S. J. — The Rorschach Test in Problem Children. *American Journal of Orthopsychiatry*, Vol. 1, No. 5, 501-511, 1931.

BECK, S. J. and LEVY, D. M. — The Rorschach Test in Manic-Depressive Psychosis. *Manic-Depressive Psychosis*. Vol. XI, Pp. 167-181, Research Publications, Association for Research in Nervous and Mental Disease, 1931.

BOWMAN, K. M. and RAYMOND, A. — A Statistical Study of the Personality in Schizophrenic Patients. *Schizophrenia*, Chapter V, P. 48. Vol. X, Association for Research in Nervous and Mental Disease. Williams & Wilkins Co., Baltimore, 1931.

BOWMAN, K. M. — The Industrial Aspects of Morbid Emotion and Fatigue. *Preventive Management*, Chapter VI, Pp. 145. B. C. Forbes Publishing Co., N. Y.

BOWMAN, K. M. — Personal Problems for Men and Women. Greenberg, N. Y. 1931. Pp. 279.

BOWMAN, K. M. and RAYMOND, A. — A Statistical Study of Delusions in the Manic-Depressive Psychoses. *Manic-Depressive Psychosis*, Chapter XVIII, Pp. 313. Vol. XI, Association for Research in Nervous and Mental Disease. Williams & Wilkins Co., Baltimore, 1931. Also in *American Journal of Psychiatry*.

BOWMAN, K. M. and RAYMOND, A. — A Statistical Study of Hallucinations in the Manic-Depressive Psychoses. *American Journal of Psychiatry*, Vol. XI, No. 2, Sept. 1931. Vol. XI, No. 1, July 1931.

BOWMAN, K. M. — The Overtired Parent. *The Parents Magazine*, Vol. VI, No. 2, P. 22. February 1931.

CAMPBELL, C. MACFIE — The Training of the Specialist in Psychiatry. *Proceedings, Congress on Medical Education, Medical Licensure and Hospitals*, Chicago, February, 1931.

CAMPBELL, C. MACFIE — Psychology and Biography. *American Journal of Psychiatry*, Vol. X, No. 5, March, 1931.

CAMPBELL, C. MACFIE — Observations on the Role of Environmental Factors in Schizophrenic Conditions. *Proc. Ass. Res. Nerv. and Ment. Dis.* 10:43-47, 1931.

SANBORN, A. G. — The Fecal Flora of Adults, with Particular Attention to Individual Differences and Their Relationship to the Effects of Various Diets. *The Journal of Infectious Diseases*, Vol. 48, No. 6, Pp. 541-569, June, 1931.

SANBORN, A. G. — The Fecal Flora of Adults, with Particular Attention to Individual Differences and Their Relationship to the Effects of Various Diets. *The Journal of Infectious Diseases*, Vol. 49, No. 1, Pp. 37-89, July, 1931.

SOLOMON, H. C., KAUFMAN, M. R. and D'ELSEAUX, F. — Some Effects of Inhalation of Carbon Dioxide and Oxygen, and of Intravenous Sodium Amytal on Certain Neuropsychiatric Conditions. *Am. J. Psychiat.* 10:761-769, March, 1931.

SOLOMON, H. C. and KLAUDER J. V. — Trauma and Dementia Paralytica. *J. A. M. A.* 96:1-7, Jan. 3, 1931.

SOLOMON, H. C. and EPSTEIN, S. H. — Tryparsamide in the Treatment of Neurosyphilis. *New York State Journal of Medicine*, August 15, 1931.

WELLS, F. L. — Comparative Psychology and Mental Hygiene. *American Journal of Orthopsychiatry*, 1931, Vol. 1, No. 4, 400-405.

WELLS, F. L. — Review of "Culture and Progress" by W. D. Wallis. *Journal of Philosophy*, 1931, Vol. 28, No. 20, 550-555.

VALUATION

November 30, 1931  
REAL ESTATE

Land, 2 acres . . . . .	\$59,300.00
Buildings . . . . .	541,944.28
	<hr/> \$601,244.28

PERSONAL PROPERTY

Travel, transportation and office expenses . . . . .	\$3,801.18
Food . . . . .	1,903.66
Clothing and materials . . . . .	1,751.69
Furnishings and household supplies . . . . .	24,362.93
Medical and general care . . . . .	20,599.88
Heat, light and power . . . . .	897.57
Farm . . . . .	—
Garage, stables and grounds . . . . .	137.40
Repairs . . . . .	1,357.43
	<hr/> \$54,811.74

SUMMARY

Real estate . . . . .	\$601,244.28
Personal property . . . . .	54,811.74
	<hr/> \$656,056.02

FINANCIAL REPORT

To the Department of Mental Diseases:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1931.

CASH ACCOUNT  
Receipts

<i>Income</i>	
Board of Patients . . . . .	\$10,354.57
Reimbursements . . . . .	2,125.63
	<hr/> \$12,480.20
<i>Personal Services:</i>	
Reimbursement from Board of Retirement . . . . .	93.76
<i>Sales:</i>	
Travel, transportation and office expenses . . . . .	9.50
Food . . . . .	67.12
Furnishings and household supplies . . . . .	6.00

Repairs, ordinary . . . . .	14.52	
Arts and crafts sales . . . . .	64.38	
Total Sales . . . . .		161.52
Miscellaneous:		
Interest on bank balances . . . . .	\$163.85	
Rent . . . . .	1,800.00	
Sundries . . . . .	238.25	
		2,202.10
Total Income . . . . .		\$14,937.58

MAINTENANCE		
Balance from previous year, brought forward . . . . .		\$6,327.36
Appropriations, current year: . . . . .		253,100.00
Total . . . . .		\$259,427.26
Expenses (as analyzed below) . . . . .		245,474.52
Balance reverting to Treasury of Commonwealth . . . . .		\$13,952.74

Analysis of Expenses		
Personal services . . . . .		\$162,090.20
Religious instruction . . . . .		1,790.00
Travel, transportation and office expenses . . . . .		5,828.66
Food . . . . .		30,850.54
Clothing and materials . . . . .		1,125.41
Furnishings and household supplies . . . . .		5,023.57
Medical and general care . . . . .		17,801.23
Heat, light and power . . . . .		9,739.67
Garage, stable and grounds . . . . .		288.60
Repairs ordinary . . . . .		3,784.62
Repairs and renewals . . . . .		7,152.02
Total expenses for Maintenance . . . . .		\$245,474.52

PER CAPITA  
During the year the average number of inmates has been, 83.80.  
Total cost of maintenance, \$245,474.52.  
Equal to a weekly per capita cost of \$56.3325.  
Receipt from sales, \$161.52.  
Equal to a weekly per capita of \$.0370.  
All other institution receipts, \$14,776.06.  
Equal to a weekly per capita of \$3.3908.  
Net weekly per capita of \$52.90.

Respectfully submitted,  
ELIZABETH LIBBER SHORE,  
*Treasurer.*

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION  
PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

Data correct at end of hospital year November 30, 1931

1. Date of opening as a hospital for mental diseases, June 1912.
2. Type of hospital: State.
3. Hospital plant:

Value of hospital property:		
Real estate, including buildings . . . . .		\$601,244.28
Personal property . . . . .		54,811.74
Total . . . . .		\$656,056.02

Total acreage of hospital property owned, 2 acres.

4. Officers and employees, November 30, 1931.

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	2	—	2	—	—	—
Assistant physicians . . . . .	6	1	7	1	—	1
Medical internes . . . . .	2	—	2	1	—	1
Clinical assistants . . . . .	5	1	6	1	—	1
Total physicians . . . . .	15	2	17	3	—	3
Stewards . . . . .	—	—	—	—	—	—
Resident dentists . . . . .	1	—	1	—	—	—
Pharmacists . . . . .	—	—	—	—	—	—
Graduate nurses . . . . .	2	12	14	—	2	2
Other nurses and attendants . . . . .	16	16	32	—	—	—
Occupational therapists . . . . .	—	2	2	—	—	—
Social workers . . . . .	—	6	6	—	—	—
All other officers and employees . . . . .	43	23	66	2	2	4
Total officers and employees . . . . .	62	59	121	2	4	6

NOTE: — The following items, 5-10, inclusive, are for the year ended September 30, 1931.

5. Census of Patient Population at end of year:

	Actually in Hospital			Absent from Hospital but Still on Books		
	M.	F.	T.	M.	F.	T.
White:						
Insane . . . . .	30	26	56	37	19	56
Epileptics . . . . .	—	2	2	—	—	—
Mental defectives . . . . .	2	1	3	—	—	—
All other cases . . . . .	7	6	13	5	5	10
Total . . . . .	39	35	74	42	24	66
Other Races:						
Insane . . . . .	1	1	2	1	1	2
Total . . . . .	2	1	3	1	1	2
Grand Total . . . . .	41	36	77	43	25	68
				M.	F.	T.
6. Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .			25	12		37
7. Other patients employed in general work of hospital on date of report . . . . .			3	—		3
8. Average daily number of all patients actually in hospital during year . . . . .			44.74	39.12		83.86
9. Voluntary patients admitted during year . . . . .			37	24		61
10. Persons given advice or treatment in out-patient clinics during year . . . . .			657	673		1,330

TABLE 2. *Financial Statement*

See Treasurer's report for data requested under this table.

NOTE. — The following tables 3-18, inclusive, are for the Statistical year ended September 30, 1931.



TABLE 3. *Movement of Patient Population*

	Regular Court Commitment (Insane)			Voluntary			Temporary Care			Observation			Total on Books		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of Institution September 30, 1930 . . . . .	60	46	106	6	4	10	10	11	21	3	3	6	79	64	143
Admissions during year:															
First admissions . . . . .	73	69	142	28	17	45	621	585	1,206	144	50	194	866	721	1,587
Readmissions . . . . .	4	1	5	9	7	16	138	120	258	30	18	48	181	146	327
Transfers from other hospitals for mental diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total received during year . . . . .	77	70	147	37	24	61	759	705	1,464	174	68	242	1,047	867	1,914
Total on books during year . . . . .	137	116	253	43	28	71	769	716	1,485	177	71	248	1,126	931	2,057
Discharged from books during year:															
As recovered . . . . .	-	3	3	2	-	2	30	1	31	1	-	1	33	4	37
As improved . . . . .	27	24	51	12	6	18	216	84	300	19	11	30	274	125	399
As unimproved . . . . .	5	3	8	5	3	8	364	487	851	41	26	67	415	519	934
As without psychosis . . . . .	-	-	-	19	11	30	134	131	265	110	29	139	263	171	434
Transferred to other hospitals for mental diseases . . . . .	43	41	84	-	-	-	-	-	-	-	-	-	43	41	84
Died during year . . . . .	6	4	10	-	-	-	8	6	14	-	-	-	14	10	24
Total discharged, transferred and died during year . . . . .	81	75	156	38	20	58	752	709	1,461	171	66	237	1,042	870	1,912
Insane patients remaining on books of hospital at end of hospital year:															
In hospital . . . . .	13	16	29	5	8	13	17	7	24	6	5	11	41	36	77
On parole or otherwise absent . . . . .	43	25	68	-	-	-	-	-	-	-	-	-	43	25	68
Total . . . . .	56	41	97	5	8	13	17	7	24	6	5	11	84	61	145

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions.*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States . . . . .	60	54	114	29	32	28	27	22	20
Austria . . . . .	—	—	—	1	1	1	1	2	1
Canada <sup>1</sup> . . . . .	2	5	7	6	6	5	10	13	9
Denmark . . . . .	—	—	—	—	—	—	—	1	—
England . . . . .	—	1	1	1	1	1	3	4	1
France . . . . .	—	1	1	—	—	—	2	1	1
Germany . . . . .	—	—	—	3	3	3	4	—	—
Greece . . . . .	1	—	1	1	1	1	—	—	—
Holland . . . . .	—	—	—	—	—	—	—	1	—
Ireland . . . . .	3	—	3	15	12	12	9	12	9
Italy . . . . .	1	1	2	5	5	5	3	3	3
Portugal . . . . .	—	—	—	1	1	1	—	—	—
Russia . . . . .	5	5	10	9	9	9	7	7	7
Scotland . . . . .	—	1	1	—	—	—	1	1	1
Sweden . . . . .	—	1	1	—	—	—	2	2	2
West Indies <sup>2</sup> . . . . .	—	—	—	1	1	1	—	—	—
Unascertained . . . . .	1	—	1	1	1	1	—	—	—
Total . . . . .	73	69	142	73	73	68	69	69	54

<sup>1</sup>Includes Newfoundland.<sup>2</sup>Except Cuba and Porto Rico.



TABLE 5. *Citizenship of First Admissions.*

	Male	Female	Total
Citizens by birth . . . . .	60	54	114
Citizens by naturalization . . . . .	5	8	13
Aliens . . . . .	7	6	13
Citizenship unascertained . . . . .	1	1	2
Total . . . . .	73	69	142

TABLE 6. *Psychoses of First Admissions.*

PSYCHOSES	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses . . . . .				—	1	1
2. Senile psychoses . . . . .				—	—	—
3. Psychoses with cerebral arteriosclerosis . . . . .				4	1	5
4. General paralysis . . . . .				34	11	45
5. Psychoses with cerebral syphilis . . . . .				—	—	—
6. Psychoses with Huntington's chorea . . . . .				—	—	—
7. Psychoses with brain tumor . . . . .				—	—	—
8. Psychoses with other brain or nervous diseases, total . . . . .				1	3	4
Other diseases . . . . .	1	3	4			
9. Alcoholic psychoses, total . . . . .				2	—	2
Delirium tremens . . . . .	1	—	1			
Acute hallucinosis . . . . .	1	—	1			
10. Psychoses due to drugs and other exogenous toxins, total . . . . .				—	1	1
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined . . . . .	—	1	1			
11. Psychoses with pellagra . . . . .				—	—	—
12. Psychoses with other somatic diseases, total . . . . .				1	14	15
Delirium with infectious diseases . . . . .	1	2	3			
Delirium of unknown origin . . . . .	—	2	2			
Cardio-renal diseases . . . . .	—	3	3			
Other diseases or conditions . . . . .	—	7	7			
13. Manic-depressive psychoses, total . . . . .				5	7	12
Manic type . . . . .	1	3	4			
Depressive type . . . . .	4	4	8			
14. Involution melancholia . . . . .				—	2	2
15. Dementia praecox (schizophrenia) . . . . .				18	10	28
16. Paranoia and paranoid conditions . . . . .				1	3	4
17. Epileptic psychoses . . . . .				—	3	3
18. Psychoneuroses and neuroses, total . . . . .				1	1	2
Hysterical type . . . . .	—	1	1			
Psychasthenic type (anxiety and obsessive forms) . . . . .	1	—	1			
19. Psychoses with psychopathic personality . . . . .				—	—	—
20. Psychoses with mental deficiency . . . . .				—	—	—
21. Undiagnosed psychoses . . . . .				5	12	17
22. Without psychosis, total . . . . .				1	—	1
Psychopathic personality without psychosis . . . . .	1	—	1			
Total . . . . .				73	69	142



TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			Traumatic			With cerebral arterio-sclerosis			General paralysis			With other brain or nervous diseases		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	4	1	5	—	—	—	—	—	—	1	—	1	—	—	—
English	13	19	32	—	—	—	1	—	1	7	6	13	—	1	—
French	5	3	8	—	—	—	—	1	1	3	2	5	1	—	—
German	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Greek	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
Hebrew	13	7	20	—	1	1	—	—	—	9	—	9	—	—	—
Irish	23	15	38	—	—	—	2	—	2	7	—	7	—	—	—
Italian <sup>1</sup>	5	3	8	—	—	—	—	—	—	3	—	3	—	—	—
Portuguese	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
Scandinavian <sup>2</sup>	—	2	2	—	—	—	—	—	—	—	—	—	—	1	—
Scotch	—	3	3	—	—	—	—	—	—	—	1	1	—	—	—
Slavonic <sup>3</sup>	—	1	1	—	—	—	—	—	—	—	—	—	—	1	—
Mixed	8	11	19	—	—	—	1	—	1	2	2	4	—	—	—
Race unascertained	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—
Total	73	69	142	—	1	1	4	1	5	34	11	45	1	3	—

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued.*

RACE	Alcoholic			Due to drugs and other exogenous toxins			With other somatic diseases			Manic-depressive			Involution melancholia		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	1	—	1	—	—	—	1	1	2	—	—	—	—	—	—
English	1	—	1	—	1	1	—	3	3	1	2	3	—	—	—
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	—	1	1	1	1	2	—	—	—
Irish	—	—	—	—	—	—	—	5	5	2	2	4	—	1	1
Italian <sup>1</sup>	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	—	—	—	—	—	—	1	1	1	2	3	—	—	—
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Total	2	—	2	—	1	1	1	14	15	5	7	12	—	2	2

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded.*

RACE	Dementia praecox			Paranoia and paranoid conditions			Epileptic psychoses			Psycho- neuroses and neuroses			Undiagnosed psychoses			Without psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	2	2	4	—	1	1	—	—	—	—	—	—	1	3	4	—	—	—
French	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	1	1	2	—	—	—	—	2	2	—	—	—	1	1	2	1	—	1
Irish	8	3	11	—	2	2	—	—	—	1	—	1	3	2	5	—	—	—
Italian <sup>1</sup>	1	—	1	1	—	1	—	—	—	—	1	1	—	1	1	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	4	3	7	—	—	—	—	1	1	—	—	—	—	2	2	—	—	—
Race unascertained	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Total	18	10	28	1	3	4	—	3	3	1	1	2	5	12	17	1	—	1

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years			25-29 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	4	1	5	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis	34	11	45	—	1	1	—	—	—	—	1	1	1	—	1
5. With cerebral syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	1	3	4	—	—	—	—	2	2	—	—	—	—	—	—
9. Alcoholic	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	14	15	—	—	—	—	—	—	—	3	3	—	3	3
13. Manic-depressive	5	7	12	—	—	—	2	2	4	—	—	—	—	1	1
14. Involution melancholia	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox	18	10	28	—	—	—	4	3	7	6	4	10	3	2	5
16. Paranoia and paranoid conditions	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	—	3	3	—	—	—	3	3	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	1	1	2	—	—	—	—	—	—	1	—	1	—	1	1
19. With psychopathic personality	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses	5	12	17	—	1	1	1	—	1	1	2	3	1	2	3
22. Without psychosis	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
Total	73	69	142	—	2	2	8	10	18	8	10	18	5	10	15

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued.*

PSYCHOSES	30-34 years			35-39 years			40-44 years			45-49 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	—	—	—	—	—	—	—	1	1
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis . . . . .	6	1	7	6	1	7	5	1	6	7	2	9
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	—	—	—	1	—	1	—	1	1
9. Alcoholic . . . . .	—	—	—	—	—	—	1	—	1	1	—	1
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	2	3	—	3	3	—	1	1	—	1	1
13. Manic-depressive . . . . .	1	2	3	—	2	2	—	—	—	1	—	1
14. Involution melancholia . . . . .	—	—	—	—	—	—	—	1	1	—	1	1
15. Dementia praecox . . . . .	2	1	3	1	—	1	—	—	—	1	—	1
16. Paranoia and paranoid conditions . . . . .	—	2	2	—	—	—	1	—	1	—	—	—
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	1	2	3	—	1	1	1	2	3	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	11	10	21	7	7	14	9	5	14	10	6	16

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded.*

PSYCHOSES	50-54 years			55-59 years			60-64 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	2	—	2	1	—	1	1	—	1	—	1	1
4. General paralysis . . . . .	4	2	6	4	1	5	1	1	2	—	—	—
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	—	—	—	—	—	—	1	1	—	—	—	—
13. Manic-depressive . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
14. Involution melancholia . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	1	—	1	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoid conditions . . . . .	—	—	—	1	1	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	—	—	—	1	1	—	1	1	—	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	8	2	10	5	3	8	2	3	5	—	1	1

TABLE 9. *Degree of Education of First Admissions Classified with Reference to Principal Psychoses.*

PSYCHOSES	Total			Illiterate			Reads and writes <sup>1</sup>			Common School			High School			College		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
2. Seale	-	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis	4	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis	34	11	45	-	-	-	-	-	-	2	2	4	1	1	2	1	1	1
5. With cerebral syphilis	-	-	-	-	-	-	-	-	-	20	8	28	9	2	11	4	-	4
6. With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases	1	3	4	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
9. Alcoholic	2	1	3	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive	1	14	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. With other manic-depressive	5	7	12	-	-	-	-	-	-	6	6	12	1	7	8	-	-	-
15. Involuntum melancholia	-	2	2	-	-	-	-	-	-	2	4	6	3	2	5	-	-	1
16. Dementia praecox	18	10	28	-	-	-	-	-	-	1	1	2	1	1	2	3	1	4
17. Paranoia and paranoid conditions	1	3	4	-	-	-	-	-	-	7	3	10	8	6	14	3	2	2
18. Epileptic psychoses	-	-	-	-	-	-	-	-	-	1	2	3	-	-	-	-	-	-
19. Psychoneurosis and neurosis	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Unlabeled psychoses	5	12	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Without psychosis	1	-	1	-	-	-	-	-	-	3	7	10	1	4	5	1	1	1
Total	73	69	142	-	-	-	2	4	6	37	33	70	25	25	50	9	4	13

<sup>1</sup>Includes those who did not complete fourth grade in school.



TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Urban			Rural		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	1	1	—	1	1	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	4	1	5	4	1	5	—	—	—
4. General paralysis . . . . .	34	11	45	34	11	45	—	—	—
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	1	3	4	1	3	4	—	—	—
9. Alcoholic . . . . .	2	—	2	2	—	2	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	1	1	—	1	1	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	14	15	1	14	15	—	—	—
13. Manic-depressive . . . . .	5	7	12	5	7	12	—	—	—
14. Involution melancholia . . . . .	—	2	2	—	2	2	—	—	—
15. Dementia praecox . . . . .	18	10	28	18	10	28	—	—	—
16. Paranoia and paranoid conditions . . . . .	1	3	4	1	2	3	—	1	1
17. Epileptic psychoses . . . . .	—	3	3	—	3	3	—	—	—
18. Psychoneuroses and neuroses . . . . .	1	1	2	1	1	2	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	5	12	17	5	12	17	—	—	—
22. Without psychosis . . . . .	1	—	1	1	—	1	—	—	—
Total . . . . .	73	69	142	73	68	141	—	1	1

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Dependent			Marginal		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	1	1	—	—	—	—	1	1
2. Senile . . . . .	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	4	1	5	—	—	—	4	1	5
4. General paralysis . . . . .	34	11	45	—	—	—	34	11	45
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	1	3	4	—	—	—	1	3	4
9. Alcoholic . . . . .	2	—	2	—	—	—	2	—	2
10. Due to drugs and other exogenous toxins . . . . .	—	1	1	—	—	—	—	1	1
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	14	15	—	—	—	1	14	15
13. Manic-depressive . . . . .	5	7	12	—	—	—	5	7	12
14. Involution melancholia . . . . .	—	2	2	—	—	—	—	2	2
15. Dementia praecox . . . . .	18	10	28	—	—	—	18	10	28
16. Paranoia and paranoid conditions . . . . .	1	3	4	—	—	—	1	3	4
17. Epileptic psychoses . . . . .	—	3	3	—	1	1	—	2	2
18. Psychoneuroses and neuroses . . . . .	1	1	2	—	—	—	1	1	2
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	5	12	17	—	—	—	5	12	17
22. Without psychoses . . . . .	1	—	1	—	—	—	1	—	1
Total . . . . .	73	69	142	—	1	1	73	68	141

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
2. Senile	—	1	5	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	4	1	5	2	—	2	2	1	3	—	—	—	—	—	—
4. General paralysis	34	11	45	11	8	19	19	2	21	3	1	4	1	—	1
5. With cerebral syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	1	3	4	—	3	3	1	—	1	—	—	—	—	—	—
9. Alcoholic	2	—	2	—	—	—	—	—	—	2	—	2	—	—	—
10. Due to drugs and other exogenous toxins	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	14	15	—	7	7	1	4	5	—	1	1	—	2	2
13. Manic-depressive	5	7	12	3	6	9	2	1	3	—	—	—	—	—	—
14. Involution melancholia	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
15. Dementia praecox	18	10	28	12	9	21	5	—	5	1	—	1	—	1	1
16. Paranoia and paranoid conditions	1	3	4	1	3	4	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	—	3	3	—	3	3	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	1	1	2	1	1	2	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses	5	12	17	3	11	14	—	1	1	2	—	2	—	—	—
22. Without psychoses	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
Total	73	69	142	34	55	89	30	9	39	8	2	10	1	3	4

TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Single			Married			Widowed			Separated			Divorced		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
2. Senile	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	4	1	5	—	—	—	3	1	4	—	—	—	—	—	—	1	—	1
4. General paralysis	34	11	45	9	4	13	22	5	27	2	1	3	—	—	—	1	1	2
5. With cerebral syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	1	3	4	—	3	3	1	—	1	—	—	—	—	—	—	—	—	—
9. Alcoholic	2	—	2	—	—	—	1	—	1	—	—	—	1	—	1	—	—	—
10. Due to drugs and other exogenous toxins	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	14	15	—	1	1	—	11	11	1	2	3	—	—	—	—	—	—
13. Manic-depressive	5	7	12	3	2	5	1	5	6	—	—	—	—	—	—	1	—	1
14. Involution melancholia	—	2	2	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
15. Dementia praecox	18	10	28	16	8	24	2	1	3	—	—	—	—	1	1	—	—	—
16. Paranoia and paranoid conditions	1	3	4	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	—	3	3	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	1	1	2	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses	5	12	17	3	9	12	2	3	5	—	—	—	—	—	—	—	—	—
22. Without psychosis	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Total	73	69	142	34	35	69	32	29	61	3	3	6	1	1	2	3	1	4

TABLE 14. *Psychoses of Readmissions*

	PSYCHOSES			Males	Females	Total
General paralysis	.	.	.	2	—	2
Alcoholic psychoses	.	.	.	1	—	1
Manic-depressive psychoses	.	.	.	1	1	2
Total	.	.	.	4	1	5

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge.*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	2	—	2	—	—	—	2	—	2	—	—	—
2. Senile	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis	16	1	17	—	—	—	15	1	16	1	—	1
5. With cerebral syphilis	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	1	2	3	—	1	1	—	—	—	1	1	2
9. Alcoholic	1	—	1	—	—	—	1	—	1	—	—	—
10. Due to drugs and other exogenous toxins	3	2	5	—	—	—	3	2	5	—	—	—
11. With pellagra	1	—	1	—	—	—	1	—	1	—	—	—
12. With other somatic diseases	—	5	5	—	2	2	—	3	3	—	—	—
13. Manic-depressive	2	7	9	—	—	—	2	6	8	—	1	1
14. Involution melancholia	—	2	2	—	—	—	—	2	2	—	—	—
15. Dementia præcox	6	4	10	—	—	—	3	3	6	3	1	4
16. Paranoia and paranoid conditions	—	2	2	—	—	—	—	2	2	—	—	—
17. Epileptic psychoses	—	1	1	—	—	—	—	1	1	—	—	—
18. Psychoneuroses and neuroses	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses	—	4	4	—	—	—	—	4	4	—	—	—
22. Without psychosis	—	—	—	—	—	—	—	—	—	—	—	—
Total	32	30	62	—	3	3	27	24	51	5	3	8

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Psychoses*

CAUSES OF DEATH	Total			With cerebral arterio-sclerosis			General paralysis			Dementia præcox			Epileptic psychoses			All other psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious Diseases</i>																		
Tuberculosis of the respiratory system	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
<i>Diseases of the Nervous System</i>																		
Cerebral hemorrhage, apoplexy	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
<i>Diseases of the Circulatory System</i>																		
Endocarditis and myocarditis	1	2	3	1	—	1	—	—	—	—	—	—	—	—	—	—	2	2
Arteriosclerosis	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
<i>Diseases of the Respiratory System</i>																		
Bronchopneumonia	2	2	4	—	—	—	1	—	1	1	—	1	—	1	1	—	1	1
Total	6	4	10	2	—	2	2	—	2	1	—	1	—	1	1	1	3	4

<sup>1</sup>Includes Group 22, "without psychosis".





TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses.*

PSYCHOSES	Total			Less than 1 month			1-3 month			3-4 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	2	-	2	2	-	2	-	-	-	-	-	-
4. General paralysis . . . . .	2	-	2	-	-	-	2	-	2	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	2	2	-	2	2	-	-	-	-	-	-
13. Manic-depressive . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	1	-	1	-	-	-	1	-	1	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	1	1	-	-	-	-	-	-	-	1	1
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	1	1	2	-	1	1	1	-	1	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	6	4	10	2	3	5	4	-	4	-	1	1

# The Commonwealth of Massachusetts

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## ANNUAL REPORT

OF THE

## TRUSTEES

OF THE

## BOSTON PSYCHOPATHIC HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1932

DEPARTMENT OF MENTAL DISEASES



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<sup>1</sup>By arrangement with the Department of Mental Diseases.

## REPORT OF THE TRUSTEES OF THE BOSTON PSYCHOPATHIC HOSPITAL

*To His Excellency The Governor and The Honorable Council:*

Again this year the annual report of the Boston Psychopathic Hospital presents material that has wide bearings. The ever-present great public and private burden of mental diseases may well evoke in the minds of thoughtful citizens questions on many points: the possible increasing frequency of mental disease, the activity of investigations into causes, the cost of caring for patients, the extent and results of therapeutic endeavors. These and many other queries find here some answering data, carried as far as our present-day knowledge makes possible in this difficult and complex field.

The two thousand patients that come and go through this hospital in a year have to be diagnosed for the sake of disposition by families, courts, social agencies, or the hospital itself. For each there must be the studies of physical conditions, studies which involve the techniques of many branches of medicine; for each there must be careful observation and evaluation of mental capacities and mental processes; the social, economic, and family background must be known. All this must be done as rapidly as is consistent with good professional standards, and the highest ideals of humane treatment must be observed. In addition, definite research programs and specialized therapies are to be maintained, calling for still more skilful and complicated technical procedures.

In our regular visits and at our monthly meetings we have reported to us general facts about these activities, about the personnel, and the administrative side of the hospital. Through the smooth administration so long characteristic of this hospital we continue to admire the quality of the work done and to rejoice in the fact that so very little difficulty ensues.

Since the days of incarceration and chaining of the insane we have gone far. It is rare indeed, in spite of the great difficulties of handling maniacal and suicidal patients, that one even hears of the slightest infractions of the rules of humane treatment. The spirit of kindly understanding as well as of scientific zeal pervades the staff at all levels.

We are always happy to note that at this hospital the Director and his colleagues continually teach other physicians their craftsmanship as well as direct the programs of research while caring for the patients. The Chief Executive Officer has been particularly progressive in his conception of opportunities for bettering conditions. The hospital building and equipment have been greatly improved by his efforts; the new dining accommodations are especially a tribute to his energy.

We have found during the year very little with which we might reasonably find fault. There continue to be desiderata, of course, but this is not a period in which to consider increased expenditures; indeed we highly commend the various economies that have been introduced.

The thanks of all good citizens of the Commonwealth as well as our own are due to all members of the Department of Mental Diseases and the Commissioner for the cooperative spirit displayed, a spirit aimed at the main goal, namely, the good care and scientific treatment of patients from mental disease, one of the most deplorable of human ailments.

Respectfully submitted,

WILLIAM HEALY, *Chairman*  
ESTHER M. ANDREWS, *Secretary*.  
WILLIAM J. SULLIVAN  
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### MEDICAL DIRECTOR'S REPORT

*To the Board of Trustees of the Boston Psychopathic Hospital:*

In accordance with the provision of the statutes I submit for your consideration the report for the statistical year ending September 30, 1932 and for the fiscal year ending November 30, 1932.

#### ON THE GENERAL WORK OF THE HOSPITAL

In this annual report, as in previous annual reports, the general work of the hospital is summarized in a series of tables which give an indication of the extent of the work done. The tables, however, give little indication of the nature of the



work done; they can neither give a picture of what is involved in the treatment of the individual case nor of the role which is played by the hospital in relation to the general welfare of the community. It may be well, therefore, at the beginning of the report, to restate certain general principles and to outline the general situation as a background to the more specific data in the general body of the report.

The hospital has to perform a variety of functions; it has to treat the sick, to forward scientific investigations into the causation and prevention of mental disorders, to give technical diagnostic assistance to such agencies as the school, the court and welfare organizations in their special tasks, to train a variety of special workers for this field of medicine and to help through a variety of channels to disseminate in the community sound information in regard to mental disorders and handicaps.

The primary role of the hospital is to treat the sick. While the hospital has only one hundred beds, it receives in the course of a year almost two thousand patients. The work of the hospital, therefore, has to be thought of in terms of this annual admission rate and not in terms of its bed capacity. Each patient admitted requires to have a thorough review of his actual condition with an adequate study of the situation which has precipitated the disorder, and of the family background and past experiences of the patient. The nature of the examination of the individual patient will depend very largely on the type of disorder; in some cases attention will be concentrated on some underlying physical ailment, in other cases the present stress and strain of the domestic and economic situation may require careful evaluation. In still other cases the mental disorder only becomes intelligible after a careful scrutiny of the past history of the individual with an analysis of the way in which he has dealt with previous tests in his life.

The diversity of the problems presented by the patients may be illustrated by brief notes on five patients.

*Mental Symptoms Due to Bodily Illness:* A. B., a young man, had for several years been suffering from a rather unusual and complicated form of anaemia. He had received blood transfusions, had been on a liver diet as well, had taken iron. Owing to some involvement of the bones of the skull, he received x-ray treatment, and soon after this x-ray treatment he became confused, apprehensive, heard voices and saw visions. He felt that people talked about his affairs, he saw palain-clothes men.

In this case the mental symptoms seem to be adequately explained as the result of special disturbances of the brain due to malnourishment and of special intracranial involvement. The problem in such a case is one of internal medicine and the methods of examination and of treatment are concentrated upon the patient's physical condition, and especially upon the fundamental involvement of the blood. There seems little reason to pay special attention to the original personality, to the details of the life history, to the domestic and economic situation.

*A Marital Situation:* B. C., a man of forty, for several years had been absurdly jealous of his wife and had given vent to outbursts of rage and had assaulted her. He had left home and on his return had given himself up to the police.

In this case there was no evidence to indicate that the physical condition of the patient was below par. The patient, of foreign origin, was somewhat below par mentally and examination was made difficult owing to his imperfect knowledge of English.

The problem in this case is very different from that of finding out the underlying nature of some somatic ailment. It deals with a familiar topic of human adaptation and the complex roots of the patient's maladjustment would require painstaking investigation of the development of the patient and of the role which had been played in his life by the sexual instinct.

C. D., a married woman of 21 with two children, for some time had been extremely jealous of her husband, believing (apparently without foundation) that he had been unfaithful, and had struck him several times.

The situation was a very complicated one involving the personality of both the husband and the wife. Self-knowledge and mutual understanding were absent in both cases. Secondary matters such as the domestic finances were made the overt excuse for friction, the source of which, however, lay much deeper.

In this case a great deal of time had to be devoted both to the husband and to the wife in an endeavor to promote their realization of some of the factors involved and in order to suggest reasonable arrangements which would make the marital situation more tolerable. The result of the expenditure of time and effort was gratifying and the domestic situation seemed to have been placed on a much more stable basis.

*Delinquency as a Symptom of Mental Disorder:* D. E., a young man in the twenties, had on several occasions stolen automobiles. In view of the circumstances the court desired to have medical opinion upon the mental state of the accused. The study of the case showed a boy of a very special personality who had several times left home on the basis of an obscure impulse. These escapes were probably related to a very complicated psychological attitude towards father and mother. The theft of the automobile did not seem to be motivated in the ordinary way but to be the outward expression of repressed and obscure emotional factors.

*An Educational Problem:* E. F., a lad of 11½ years, appeared to his teachers to be feeble-minded. The study of his case showed that he was neither feeble-minded nor had any mental disorder but that there was a special disability in regard to reading. What the boy required was special tutoring. The case is referred to in more detail in the accompanying report of the Chief Medical Officer.

*A Distorted Social Outlook:* F. G., a woman in the fifties, was brought to the hospital from the police station where she had made various statements with regard to being persecuted. She gave a long history of ill-treatment, complained that vomiting to which she was subject was due to her being poisoned, a gang of racketeers had been after her, they had tried to poison her, her landlady had behaved in mysterious ways. On account of her suspicions the patient had travelled over the country but found it impossible to get away from her persecutors.

In such a case, where a patient sees the world as full of hostility, the medium through which she is looking at the world is obviously distorted; to understand the factors which have distorted this medium means a prolonged discussion of her experiences and of the way in which she has dealt with some of the major issues of life.

#### ON THE STUDY AND TREATMENT OF THE INDIVIDUAL PATIENT

These brief summaries may give some idea of the complexity of the situation which is presented by the individual patient. The physician has first of all to make a thorough study of the bodily condition of the patient. In the report of the Chief Medical Officer examples are given of the various problems that come up in this respect. The physical examination, however, is merely one item in dealing with the problem of the patient. A further step is to review the special conduct, the special mood, the special beliefs which have led to his being referred to the hospital. On the basis of such an examination the physician is able to specify the type of disorder from which the patient is suffering. The factors which have led to this disorder, however, have still to be traced. A careful review has to be made of the constitution of the individual in view of the hereditary endowment and of the personal experiences which may have made him more vulnerable; it is also necessary to reconstruct the situation in which he broke down. Such a procedure means a careful and painstaking review of the whole life of the patient, with due attention to the influence of bodily ailments and to the influence of unfavorable family, economic, social and general cultural factors.

The adequate study of the bodily, personal, social aspects of the individual case requires a certain division of labor. The review of the bodily functions of the patient in the ward must be supplemented by data from the laboratory of internal medicine with its special equipment. The analysis of the mental functions of the patient in interviews with the physician is often usefully supplemented by data afforded by the psychologist with his methods of precision and his special experience in the interpretation of the results of such methods. The data supplied by the patient and visitors with regard to his domestic, economic and social life may have to be supplemented by information gathered by the field worker trained in the methods of psychiatric social work.

With the large number of admissions to the hospital and with so many fields of inquiry to be covered in the individual case, it is necessary to have a well trained



body of specialized workers and to have the work not only well organized but carried out in a spirit of helpful cooperation.

The study of the individual patient is an essential preliminary to any rational program of treatment. The remarks made above as to the various fields which the study of the mental disorder covers already suggest the complexity of the problem of treatment. There is unfortunately a wide-spread feeling that there is less treatment in this branch of medicine than in other branches; it is frequently assumed by the laity and even by many physicians that the treatment of a mental patient is essentially a matter of kindly care and attention to the ordinary personal needs, but that there is no program of treatment based upon as definite principles as those in internal medicine and surgery. This is certainly not the case. Treatment of the mental patient follows lines as definite as the treatment of any other human ailment. In internal medicine there may be a greater use of drugs and of other specific preparations, with precise methods for determining the reaction of the various systems to those preparations. In the treatment of the mental patient the administration of drugs and other preparations has a more limited application in cases where mental disorder is accompanied by any underlying physical ailment; the use of appropriate remedies for the latter is called for, but where there are no such ailments drugs play a subsidiary role as palliative measures for inducing sleep, reducing excitement, eliminating apprehensiveness.

As the study of the individual patient requires investigation not only of the bodily functions but of the life situation, of the past experiences, of the constitutional needs, and tendencies of the patient, so in the program of treatment each of these topics requires careful consideration. Drugs may or may not be required for the treatment of any physical condition present, but when it comes to dealing with the adaptation of the patient to his actual life situation and with the role played in his present disturbance by residuals from past experiences, then treatment has got to utilize other factors than drugs, baths, massage, light, electricity. It has to utilize the personal factor, the influence of the physician upon the patient, the specific help which can be brought to the patient by the physician who understands the underlying emotional and instinctive factors which are at work, and who is experienced in dealing with human nature in difficulties. In other words, a great role is played in treatment by psychotherapy, by the curative influences which are involved in the personal relationship of patient to physician and which are made effective in a series of interviews. In the personal relationship to an understanding physician the patient is able to bring up more freely and to face more directly underlying impulses and memories, which have been repressed but which have more or less haunted him. In the therapeutic interview the patient is able to bring these up, to see them in a clear light, to ventilate them; they thus lose some of their disproportionate emotional value and are grasped in the setting of a grown-up attitude towards life. As the interviews progress the patient sees more clearly the nature of his personal problems. He deals with them more openly and intelligently. He feels a release from distressing emotions. He acquires information which is useful in the conduct of life. As he makes progress in these directions, the mental symptoms which have been the irrational expression of the repressed forces no longer are needed as an outlet for these forces, which now are allowed to come clearly into the field of consciousness of the individual in order to be dealt with in a rational way.

Not all patients are open to treatment of this type. Many are too much in the bondage of their mental symptoms which may make such contact with the physician impossible. The mental condition itself may withdraw the patient from this opportunity of help and the physician may have to wait patiently until the patient is ready for this form of treatment; similarly the surgeon may have to wait until an acute inflammation has subsided before he can proceed with constructive measures.

Thus the patient who is mute and irresponsive may be lost in a world of subjective preoccupations which make contact with the outside world difficult. A patient in a state of wild excitement may not be able to hold any connected conversation with the physician. A patient with an embittered attitude, which leads him to see hostility in everyone who approaches him, may see the physician through the

same medium and may refuse to take the first steps in social contact which might gradually lead to a useful therapeutic relationship.

The treatment of many patients is, to a large extent, directed to the management of the patient during these difficult periods where freindly and productive contact with the patient is not possible. Such management in itself cannot be looked upon as specifically therapeutic in the sense of meeting the underlying factors which have given rise to the sickness and modifying them, but has to be looked upon more as an essential preliminary to the more radical form of treatment. Too often, unfortunately, the condition of the patient does not allow the treatment to be carried far beyond this stage of management, and the patient is already too seriously divorced from reality to be able to utilize the bond which the physician endeavors to establish with the patient.

It is not enough, however, to attend to the general physical health of the patient, to tide him through periods of difficult social contact, to give him the opportunity of reviewing frankly and digesting upsetting factors; the physician must not allow the normal interests and activities of the patient to atrophy nor encourage the patient to focus interest exclusively on his or her personal difficulties. The patient must be encouraged to cultivate interests in external matters and to put forth effort in socially constructive ways. A useful daily program has to be arranged for the patient with due regard to the nature of the disorder, the economic background of the patient, the special interests and abilities of the patient. In the department of Occupational Therapy an effort is made to furnish a program for the individual patient which will do justice to this need of the patient, and [the hospital is fortunate to have skilled workers in this field whose energies are enthusiastically devoted to this problem. The structural limitations of the hospital, the absence of the facilities for outdoor activities, the limitation in the number of personnel make it impossible to give the patients as full a program as the physicians would like. The accomodation for occupational therapy is available to the women only in the forenoons and to the men only in the afternoons. Even a short period, however, of activity of this nature is a most important factor in the patient's daily program for maintaining healthy interests in a variety of occupations and encouraging the patient to put forth effort in producing objects which are of social value, for the aim is to have the patients make objects which are of practical use to the hospital.

The role of the nurse in the treatment of the individual case is of great importance. In a general hospital when the patient has received the specific nursing attention required by the special disorder the patient may often be left to his or her own devices. As a matter of fact, even in the ordinary medical and surgical wards increasing attention is being paid to the personal aspect of the patient's handicap so that the nurse is encouraged to learn something about the personality and the life situation of the patient. Such attention to the personal factors in the problems of illness renders the nurse increasingly efficient and gives her a broader grasp of the field of medicine.

In the mental hospital this aspect of medicine is still more in evidence for there may be no necessity for any of the ordinary nursing procedures; the patient may not be bedridden, may have no wounds, require no medicines nor special form of physical treatment. In the past the role of the nurse in a mental hospital has often been thought of as purely one of management and of discipline, of dealing with emergencies as they came up and of carrying on a simple ward routine in the quiet intervals. The older terms such as "keeper" and "attendant" give expression to this emphasis on custodial care. With a deeper grasp of the nature of mental disorder and with some appreciation of the medical task which is laid upon the hospital, the nurse has to exercise her special knowledge and her native judgment in finding out the exact role which she plays in relation to the individual patient. The physician may not feel himself entitled in view of the special relationship between him and the patient to outline to the nurse in full detail the confidences which the patient has given to him. Yet the nurse must get some guidance as to the problem of the patient and the part which she has to play in helping the patient. She is entitled to receive from the physician a general outline of the nature of the disorder, and information as to special details which may be of importance in the



treatment of the case. With such general guidance the nurse has to make her own special contact with the patient, not in order that she may carry on a specific type of psychotherapy but that she may, under the ordinary conditions of ward life, give the patient a certain atmosphere and establish a human relationship which the patient finds of value. Not uncommonly a patient talks matters over with a nurse more freely than with a physician, just as in some cases a patient talks over with a fellow patient topics which he does not wish to talk over with the personnel of the hospital.

The systematic development of psychiatric nursing is an important task for the medical and the nursing profession. The problem is not only to train special nurses for work in this field but to train all nurses to have a sufficient knowledge of the principles of work in this field, so that they may be more efficient in their general nursing and not lose sight of the patient in attention to the patient's disease.

In the Boston Psychopathic Hospital there is a constant stream of affiliated nurses who come from their own hospitals for a period of three months in order to get some insight into this special field. This rapid change of personnel is a drawback in so far as it means a smaller number of nurses of experience available for the regular work of the hospital; on the other hand, the fresh arrival of nurses from different hospitals, keenly interested in a somewhat new problem, is a stimulating influence. In the course of one year the Boston Psychopathic Hospital gives training to fifty-six affiliated nurses.

#### ON THE SPECIAL DEPARTMENTS OF THE HOSPITAL AND THE COORDINATION OF THEIR WORK

In the body of the report will be found brief summaries of the work which is done in the various special departments of the hospital. The remarks above on the general work of the hospital indicate the various aspects involved in the study, treatment and care of the patient.

The report of the Chief Executive Officer gives an idea of the general problems of the administration of the hospital, with that attention to the basal services and supplies which is fundamental for the smooth working of the special services.

The report of the Chief Medical Officer lays special emphasis upon the great variety of bodily ailments which enter into the more complex problems of the morbid behaviour and morbid beliefs of the patients. For the detailed study of the physical processes modern medicine requires a rather elaborate supplement of the bedside examination by examinations which are more appropriately done in the adjoining laboratory but which are to be looked upon as an essential part of clinical medicine. The examination of the blood, the urine and the cerebrospinal fluid may be made in an adjoining room instead of by the bedside, but such an examination is not to be looked upon as of a character different from observation of the breathing and the heart sounds. Increase of knowledge and the application of ingenuity continually lead to further elaboration of old methods and discovery of new methods which require new apparatus.

The condensed summary of the work of the psychological laboratory may not give full expression to the work which is done by this department in helping the clinical staff to deal with some of its most complicated problems. In a great many of the patients referred by the courts the question of interpretation and disposal may be largely influenced by an estimate of the original endowment of the individual in regard to "intelligence." In regard to the estimation of the problems and the recommendations in the case of the majority of the children referred to the hospital an estimate of their general intelligence is also of the greatest importance. In addition to the problems of general intelligence there are special functions which require to be investigated with greater accuracy than is common in clinical work, and the psychological staff have paid much attention to the analysis of memory and to a study of the personality traits of groups of patients. Special reference may be made to the specific work on one test of special value (the Rorschach Test) and to another piece of work on the mental level of infants and very young children.

In a great number of patients the symptoms which have led to admission and the program of treatment can only be intelligently discussed on the broad background of the patient's life situation with its domestic, economic and broader social aspects. The woman who comes in under the delusion that people are trying to

make her a bad woman, to take away her religion and make her give up her inhibitions may, in these symptoms, show the difficulties of her actual life at home, the repression of natural instincts, the inadequacy of substitutive satisfactions, the impossibility of getting along any longer under the somewhat drab and dreary conditions of the actual situation.

The problem of the patient very often, therefore, is a social problem, and to do justice to this social problem the personnel of the Social Service Department are specially trained. Through their investigation it is possible to reconstruct more adequately the factors which have led to the breakdown, and through them the recommendations of the physician with regard to reconstructive work can be translated into concrete terms, so that the patient may go home to a situation which has been made more tolerable, and may have at her disposal social resources which previously she did not know about. The social service worker has her own special training in methods and data and develops a knowledge of the local community and its resources which are of the greatest value.

The patients come from many racial groups, with different codes, religions, diets, habits, and in the treatment of the individual case one has to pay due value to the importance of these broader factors.

The social service is a very important liaison between the hospital and various organizations in the community both official and unofficial, whose field overlaps the field of work of the hospital. The courts with their delinquents, the schools with their problem children, the welfare agencies with their domestic situations, the child-placing agencies, the employment agencies, the churches with their social organizations — with each of these the social service-department keeps in close touch. Through the social service department many of these agencies bring their problems to the hospital and get the recommendations of the hospital transmitted to them.

It is a constant study in this department to see how far the problems which are referred to the hospital are formulated in a way that is useful and the inquiries accompanied by all the relevant data which the referring agency has, and how far the special recommendations which are made by the physicians are in a form which the worker in a welfare agency or in a school can assimilate and utilize. A recently made survey of the mental hygiene of Boston showed how important it is that the liaison between the hospital and the various agencies should be made a living connection and not become a somewhat dry interchange of formal and technical communications.

#### ON THE PROMOTION OF RESEARCH

One of the primary purposes of the hospital is to promote investigation into the fundamental causes of mental disorders, a role as important in the long run to the welfare of the community as the actual treatment of those who have fallen by the wayside. To many it seems poor economy to devote so much time and money to problems connected with the treatment of those who have fallen sick while almost a negligible sum is devoted to the more fundamental problem of ascertaining the causes of mental disorders and of dealing in a constructive way with these causes.

The staff of the Boston Psychopathic Hospital have little time for consecutive and uninterrupted research and have not at their disposal the generous facilities which are often available in research institutions. On the other hand, in the regular work of the staff an endeavor is made to foster the spirit of curiosity and of thoughtful approach to problems for investigation. The nature of mental disorders shows how wide is the field open for investigation. The physical processes which are responsible for many types of mental disorder are often known only in outline. There is need of greater knowledge of the relation of mental disorders to the general chemistry of the body, to disorders of the gastro-intestinal and other systems, to infective processes. The physician finds much to investigate in regard to the emotional life, the reactions of different types to disturbing situations, the role played by the imagination, the origin of hallucinations, the value of special tests, and other topics. There is also need for research into factors of great social importance, which have an important bearing on the stability of the home and the social value



of the individual; much work has to be done in studying the requirements of children with special defects such as in reading or in speech, or with faulty social behaviour. The material of the Boston Psychopathic Hospital throws a valuable light upon many problems of the school and of the home, problems of the management of the sex life, of the relation of child to parents, of the emancipation of the adolescent, of adult adjustment to various social and economic demands. In the reports from the various departments of the hospital, the special topics of investigation which have been in the foreground during the past year are emphasized. The comparative neglect of neuropathological investigation in the program of the hospital's activities is still a matter of regret, but the hospital has no pathologist of its own.

#### ON THE WORK OF THE OUT-PATIENT DEPARTMENT

Modern medicine has come to lay increasing stress upon the importance of the prevention of disease and upon the early diagnosis and treatment of disease. In the field of psychiatry this tendency has led to an increasing concentration upon the problems of childhood and upon the early stages of individual maladjustment. It is hoped that by the intelligent study and guidance of childhood not only may some individuals be saved from shipwreck in adult life, but those who are not specially vulnerable will gain in fullness and efficiency of life.

The hospital through its Out-Patient Department endeavors to give expression to this principle of modern psychiatry. It offers an opportunity for parents, teachers and welfare workers to get advice with regard to the guidance of the individual child. It offers to adolescents and adults an opportunity of getting advice with regard to their personal problems without that interruption to their daily life which would be involved in admission to the hospital.

In the report from the Out-Patient Department and the Social Service Department one sees the great variety of problems which are presented to the workers in the Out-Patient Department for consideration and advice. Between the infant about to be adopted who is brought for examination, and the discouraged elderly city employee who is still on his job, but who finds stimulus and encouragement from contact with the physician in the Out-Patient Department, are patients of both sexes and all ages who bring to the Out-Patient Department their personal problems. In many cases the patient is sent for a diagnostic review of limited extent so that in a comparatively brief period the physician can give the referring agency the result of the special examination. In other cases it is not a question merely of a consultant's opinion but the patient comes for treatment and this, as indicated in the early paragraphs of the report, involves a painstaking review of the personality of the patient, of the various phases of his individual development and of the special qualities of the life situation.

Treatment of this type necessarily involves a long series of interviews each of considerable duration. It is, therefore, one of the problems of the Out-Patient Department to see how far such treatment can be made available to those individuals who require it, while leaving enough time for the problems of other patients where such a detailed review is not necessary.

The appointment system has been in use now for the second year and is being carefully watched to make sure that its advantage of saving the time of patients is not offset by discouraging a certain number of patients whose willingness to consult a physician is somewhat wayward and impulsive and whose very symptoms may make it difficult for them to arrange to keep an appointment.

In the work with children there has been not only the continuation of the regular work of surveying backward children in the special school district allotted to the hospital but also special attention continues to be given to the earliest period of development by Miss Jones. Work has been done on the special defects of school children and arrangements made for special tutoring.

In dealing with the problems of the behaviour of children, while a good personal contact is made with the individual child by the physician, the guidance to a large extent consists in dealing with the situation, especially with the personality of the parents or the guardians of the individual child.

## ON THE TRAINING OF PERSONNEL

In addition to acting as one of the health units of the community and as a centre of investigation into the problems of mental disorders, the hospital acts as a centre of training for various types of workers. There is a constant stream of young physicians who, through their internship at the Boston Psychopathic Hospital, lay the basis of their later work in this special field or prepare themselves by a year's work in psychiatry for dealing more efficiently in their general practice or in their other specialized activities with the personal problems of their patients. In addition to the resident staff, a number of graduate workers come to the hospital for various periods for special training. The special facilities of the hospital are also utilized by the students of the various medical schools.

In each of the special departments workers are trained for specialized activities along definite lines. In the psychological department the psychologist gets an opportunity of preparing himself for a special field of psychology which is closely related to the medical field of psychiatry and, on the basis of his training in the hospital, is better equipped for taking up responsibilities connected with court work or school work or work in mental hospitals.

In the department of occupational therapy, workers from the Boston School of Occupational Therapy have an opportunity of getting experience in field work, while at the same time they contribute much to the efficiency and the general atmosphere of the department.

In the Social Service Department as well as in the nursing service the individual worker is not only contributing service to the hospital but is also going through a systematic form of training.

In addition to the above systematic teaching, the hospital in various ways through its contact with the personnel of other health and welfare organizations in the community acts as an educational centre.

## CONCLUDING REMARKS

In the report special emphasis has been laid upon the service which the hospital renders to the community and the various specialized activities through which it tries to fulfil its task. In each of its departments the workers have their own specialized interests as well as their interest in the common task to which they make their special contribution. In each department topics of special interest engross the worker, opportunities for further investigation appear, facilities for carrying out these investigations are desired.

For most investigations on medical topics one requires not merely space but apparatus and personnel. The expanding interests in the various departments and the constructive program of the individual workers are seriously cramped by limitations of structure and of finance. To do justice to the needs of the workers in the various departments it is very desirable that arrangements should be made whereby much more space is available for laboratory purposes. Financial restrictions, too, prevent the prosecution of many pieces of work which are of promise.

The hospital is fortunate in having a group of workers who accept loyally the conditions as they are, throw themselves into the work with industry and intelligence, and whose main thought is to do the best with the facilities which are already available. In the hospital with its busy service, its somewhat cramped quarters, its varied personnel, the harmony of the group is one of the most satisfactory features, and this is a suitable opportunity to express my deep appreciation of the good fellowship of the personnel of the hospital.

I take this opportunity also of thanking the Board of Trustees for the continuation of that solicitous interest in the welfare and efficiency of the hospital which they have shown in previous years.

It is also a pleasure to express appreciation of the support which has been consistently received from Dr. Kline, Commissioner of Mental Diseases who has throughout given sympathetic consideration to all problems which have been brought before him.

Respectfully submitted,

C. MACFIE CAMPBELL,

*Medical Director.*



Annual Statistics Classified according to Legal Status, October 1, 1931 to September 30, 1932

PSYCHOSES	All First Admissions		All Readmissions		First Admissions by Regular Court Commitment		Readmissions by Regular Court Commitment		Temporary Care First Admissions		Temporary Care Readmissions		Voluntary First Admissions		Voluntary Readmissions	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Traumatic psychoses	7	1	2	2	1	1	-	-	6	1	2	2	-	-	-	-
Senile psychoses	-	2	1	1	-	-	-	-	-	2	-	-	-	-	-	-
Psychoses with cerebral arteriosclerosis	6	21	3	1	-	-	-	-	-	2	1	2	-	-	-	-
General paralysis	90	16	15	1	1	3	4	4	5	18	3	4	8	2	10	3
Psychoses with cerebral syphilis	3	1	4	16	35	4	-	-	47	10	8	1	-	-	-	-
Psychoses with Huntington's chorea	1	1	4	4	-	-	-	-	3	1	3	3	-	-	1	-
Psychoses with brain tumor	3	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Psychoses with other brain or nervous diseases:																
Tubercular meningitis	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Multiple sclerosis	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Tabes dorsalis	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Encephalitis lethargica	6	2	1	1	-	-	-	-	6	2	1	-	-	-	-	-
Undetermined	27	23	50	5	2	5	7	-	27	23	50	5	2	-	-	-
Other types	8	5	-	1	2	5	7	-	4	-	-	1	2	-	-	-
Alcoholic psychoses:																
Delirium tremens	27	8	2	2	-	1	1	-	27	7	34	2	-	-	-	-
Korsakow's psychosis	2	-	2	-	-	-	-	-	2	-	-	-	-	-	-	-
Acute hallucinosis	19	10	8	3	1	-	1	-	17	10	27	8	1	-	-	-
Other types	52	9	16	1	-	-	-	-	51	9	60	16	1	-	-	-
Psychoses due to drugs and other exogenous toxins																
Opium and derivatives	15	9	2	3	2	2	-	1	15	7	22	2	-	-	-	-
Other exogenous toxins	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-
Psychoses with pellaagra	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-
Psychoses with other somatic diseases:																
Delirium with infectious diseases	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-
Post-infectious psychoses	3	1	4	-	-	-	-	-	3	-	3	-	-	-	-	-
Delirium of unknown origin	3	3	6	-	1	2	-	-	2	2	4	-	1	1	-	-
Cardio-renal disease	7	8	15	-	2	3	5	-	5	5	10	-	-	-	-	-
Other diseases or conditions	5	21	26	5	5	5	-	-	5	16	21	5	-	-	-	-
Undetermined	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-
Manic-depressive psychoses:																
Manic type	19	44	10	27	1	3	4	2	17	41	58	7	1	-	1	1
Depressive type	75	93	12	19	6	5	11	-	68	87	155	11	1	1	2	1
Other types	13	10	16	3	-	-	-	1	13	9	22	15	-	1	1	-



## REPORT OF THE OUT-PATIENT DEPARTMENT

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith submit the annual report of the Out-Patient Department for the year ending November 30, 1932.

The staff of the clinic during the past year was as follows:

Dr. C. Macfie Campbell, Director of the Hospital.

Dr. Oscar J. Raeder, Chief of Out-Patient Department.

Dr. Mary Palmer, Assistant Physician.

Dr. Chales B. Sullivan, Assistant Physician.

Miss Annie C. Porter, Clinic Manager.

*Special Workers:* Dr. Ella Prescott Cahill; Dr. Henry B. Elkind; Dr. Dorothy L. Green; Dr. Henry Norman; Dr. Mary B. Spahr; Dr. Bertrand H. Pulskamp; Dr. Hortensia A. F. Robinson.

*Students:* Jacques S. Gottlieb, September 29 to October 24, 1931; Henry Reynolds, November 24 to December 24, 1931; Emmett Settle, February 4 to February 29, 1932; John B. Dynes, May 2 to May 25, 1932.

During the year 1931-1932 there were 938 new patients, including 68 cases of neurosyphilis. Excepting the latter there were 870 new patients, of whom 400 were male, and 470 female. Four hundred and forty-one patients or 50.6% were adults, 164 or 19% were adolescents, and 265 or 30.4% were children. The reasons for which these people consulted the clinic were numerous. For convenience they have been grouped under the following headings: (a) behavior; (b) domestic; (c) educational; (d) neuropathic; (e) personality; (f) routine examinations; (g) vocational; (h) a miscellaneous group.

The sources of material are also various. Social agencies referred the largest number, 344 or over 39%. 132 or 15.1% were referred by other hospitals; 114 or 13.1% were referred by private physicians; 107 or 12.2% by relatives or friends; 37 or 4.2% by the schools; and 37 or 4.2% by the courts. The remainder or 12.2% came from various sources (see table), including 43 or 5% which were referred by the Boston Psychopathic Hospital after discharge.

The diagnoses among the adults were as follows: Psychoneuroses head the list with 168 cases, 19.3% of the total new cases. Last year only 9.6% were so diagnosed. The relative increase of males over females was 6%, from 42% last year to 48% this year. The economic stress due to business depression has been a frequent factor in these cases. It is logical, too, that the greatest increase has been among the male patients who have been more directly affected by unemployment. Thus, idleness of mind and increased economic worries loom up large as causes of neurotic symptoms.

Among the other larger groups the schizophrenic psychoses are noteworthy. Forty or 4.5% cases were definitely or tentatively so diagnosed. Of these 18 were males and 22 females. Manic-depressive psychoses and other affective conditions numbered 30 or 3.4%, 10 of which were males, and twice as many, viz, 20, were females. Convulsive states, including epilepsy, were diagnosed 17 times or 1.9%, and psychopathic personality 15 times, or 1.7%.

Among the children and adolescents, feeble-mindedness again is the largest group. Not including those children diagnosed as retarded or borderline, there were 56 cases, 28 boys and 28 girls. The number of children diagnosed as retarded or borderline together numbered 82 cases, 47 boys and 35 girls. This group would precede by sheer numbers the former group, but we have elected to place the feeble-minded first inasmuch as the probable degree of error in diagnostic judgment is much less in the "feeble-minded" group.

Neurotic children were so diagnosed 38 times, or 4.3%, 21 of whom were male and 17 female. There were 17 normal children, mostly cases for adoption who were referred primarily for intelligence rating.

It is interesting to note that there were 11 children, 7 males and 4 females, of superior intelligence. Superior children are potential cases of misbehaviour, especially when they are placed too low in the school grades for their mental ages and capabilities, and there is not sufficient demand made on their time and on their superior capacities.

Under the law (Chapter 215, Acts of 1931) which requires a physical and mental examination of all children who are about to be committed to public institutions,



there were 95 cases, 86 males and 9 females, examined. This law is largely a check to secure for feeble-minded or psychotic children the proper care and training as provided in the divers state institutions for children, juvenile delinquents, and others.

The examination of the retarded children of the Brookline schools was again conducted under the auspices of the Out-Patient Department in charge of Dr. Mary Palmer as psychiatrist, aided by the following staff:

Mrs. Gertrude Pierce, teacher.

Mrs. Ada Joyce, Visiting teacher.

Mrs. Greely S. Curtis, social worker.

Miss Viola Jones, psychologist.

Mrs. P. S. deQ. Cabot, student assistant psychologist.

The following is the report of this year's survey.

*Names of Schools and Number of Students Referred*

Baldwin . . . . .	0	Heath . . . . .	11	Pierce . . . . .	29
Cabot . . . . .	0	Lawrence . . . . .	0	Runkle . . . . .	9
Devotion . . . . .	5	Lincoln . . . . .	19	Sewall . . . . .	4
Driscoll . . . . .	38	Parsons . . . . .	1	Winthrop . . . . .	10
Total					126

Boys 88; Girls 38.

Examined for first time: boys, 72; girls, 36; total, 108.

Examined for second time: boys, 16; girls, 2; total, 18.

*Classification of pupils examined for the first time on basis of Intelligence Quotient*

I. Q. 69 or less (Feeble-minded)			I. Q. 70-79 (Borderline)			I. Q. 80-89 (Dull)			I. Q. 90-109 (Average)			I. Q. 110 and over (Superior)		
T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.
1	1	0	16	8	8	32	19	13	50	36	14	9	8	1

Total: 108; boys, 72; girls, 36.

*Classification of Pupils re-examined in 1931-1932*

I. Q. 69 or less (Feeble-minded)			I. Q. 70-79 (Borderline)			I. Q. 80-89 (Dull)			I. Q. 90-109 (Average)			I. Q. 110 and over (Superior)		
T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.
1	1	0	5	5	0	8	7	1	4	3	1	0	0	0

Total: 18; Boys, 16; girls, 2.

*Recommendation for Special class*

First examination: total, 5; boys 3, girls 2.

*Recommendation for special class — re-examination*

Total, 1; boys 1, girls 0.

*Recommendation for Institution care — re-examination*

Total, 1; boys 1, girls 0.

*Retardation*

31 students were 1 year retarded: <sup>1</sup>

2 were of borderline intelligence.

10 were of dull normal intelligence.

19 were of average intelligence.

38 students were 2 years retarded:

<sup>1</sup>Chapter 231, Section 46, of the General Laws, was amended in 1931 to include children retarded less than two Years and those with behavior problems.



- 2 were feeble-minded.  
 10 were of borderline intelligence.  
 15 were of dull normal intelligence.  
 11 were of average intelligence.  
 6 students were 3 years retarded:  
 3 were of borderline intelligence.  
 3 were of dull normal intelligence.  
 3 students were 4 years retarded:  
 2 were of borderline intelligence.  
 1 was of dull normal intelligence.

Reading disabilities 18 students — boys 18, girls 0.

The following table is an analysis of these eighteen students:

Grades	Students	Grades	Students
First . . . . .	2	Fifth . . . . .	2
Second . . . . .	6	Sixth . . . . .	1
Third . . . . .	2	Seventh . . . . .	0
Fourth . . . . .	4	Eighth . . . . .	1

#### Reading Disabilities

Number Cases	C. A.	M. A.	I. Q.	School Grade	Reading Grade
1	8	8-4	104	1	0
2	5-4	6-4	119	1B	-
3	7-7	8-0	105	2	0
4	8-6	8-3	97	2	0
5	9-7	8-9	91	2	0
6	11-3	7-10	70	2	0
7	8-1	8-6	105	2A	1.9
8	9-4	7-8	82	2A	0
9	9-6	9-3	97	3	2.8
10	9-9	9-3	95	3B	0
11	10-2	9-7	93	4	2.6
12	10-3	10-3	99	4	3.6
13	11-2	8-0	72	4A	0
14	11-10	10-1	85	4B	3
15	11-11	10-1	85	5	3.4
16	12-7	10-4	81	5	3.1
17	12-11	12-10	90	6	4.6
18	13-10	13-11	101	8B	5.7

The following statistical tables are self-explanatory and deal further with the work of the clinic.

#### STATISTICS OF THE OUT-PATIENT DEPARTMENT

October 1, 1931 to September 30, 1932

Total new cases . . . . . 938

Out-Patient Department, 870; Syphilis Division, 68.

New Patients:

	Male	Female	Total
Adults . . . . .	186	255	441
Adolescents . . . . .	59	105	164
Children . . . . .	155	110	265
	400	470	870
Plus:			
Syphilis patients . . . . .	30	38	68
	430	508	938

#### Nationality

	Males	Females	Total
African . . . . .	12	12	24
Armenian . . . . .	3	3	6
Danish . . . . .	1	0	1

Dutch	2	1	3
English	39	64	103
Finnish	—	3	3
French	5	17	22
German	3	7	10
Greek	4	4	8
Hebrew	53	45	98
Irish	70	64	134
Italian	34	45	79
Lithuanian	5	4	9
Polish	1	1	2
Portuguese	4	7	11
Scandinavian	11	3	14
Scotch	9	13	22
Slavonic	6	4	10
Spanish	1	0	1
Syrian	7	1	8
Mixed race	82	79	161
Race unascertained	48	93	141
	400	470	870

*Referred By*

	Male	Female	Total
Boston Psychopathic Hospital	28	15	43
Other hospitals	59	73	132
Private physicians	57	57	114
Social agencies	108	236	344
Court	31	6	37
Department of Immigration	0	1	1
School	28	9	37
Boston Traveler	1	0	1
Relatives and friends	57	50	107
Own initiative	25	18	43
Department of Mental Diseases	3	3	6
Police	1	—	1
Church	0	2	2
Employer	1	0	1
Walter E. Fernald State School	1	0	1
	400	470	870

*Problems*

An attempt has been made to classify the problems on account of which the clinic was consulted into the following eight headings. This is a more or less arbitrary grouping, it being often difficult to decide whether cases of running away, sex delinquency, lying, etc. for example, should be included under "behaviour problems", under "personality problems", or under the "neuropsychic" group.

*a. Behavior:* Misconduct, running away, sex delinquency, disobedience, lying, stealing, exhibitionism.

*b. Domestic:* Abnormal home situation, economic, bigamy, establishment of home, re-establishing home.

*c. Educational:* Intelligence rating, retardation, reading difficulty, violating school law, speech difficulty, truancy.

*d. Neuropsychic:* Nervousness, hysteria, fear and worry, agitation, dizziness, tremors, enuresis, temper tantrums, depression, alcoholism, dazed condition, inability to think, somatic complaints, shakiness, continual tiredness, excitability, fainting spells, hallucinations, gagging in throat, threats of suicide, constipation, walking difficulty, seizures, wry neck, irritability, ideas of reference, screaming spells, restlessness, delusions, emotional difficulty, twitching, weakness, creeping sensation, insomnia, crying spells, convulsions, refusal to talk, sex conflict, grandiose

ideas, stuttering, sleepy spells, pain in head, photophobia, "spirit in body", ideas of persecution, lapses of memory, psychosis, excessive self-criticism.

*e. Personality:* Seclusiveness, peculiar personality, lack of interest, distractibility, lack of adjustment, lack of ambition, mismanagement.

*f. Routine examination:* Psychometric testing, adoption, psychiatric examination

*g. Vocational:* Ability to work, vocational advice, re-establishment in business, ability to care for children.

*h. Miscellaneous:* After-care, institutionalization, placement.

### Diagnosis

	Male			Female	Total
Alcoholism . . . . .			5	—	5
Senile psychosis . . . . .			—	4	4
Psychosis with cerebral arteriosclerosis . . . . .			—	2	2
General paresis (questionable) . . . . .			4	—	4
Alcoholic psychosis . . . . .			1	—	1
Manic-depressive insanity . . . . .			10	20	30
Involuntary melancholia . . . . .			—	2	2
Schizophrenia . . . . .			18	22	40
Paranoia . . . . .			2	5	7
Epileptic psychosis . . . . .			2	—	2
Psychoneurosis . . . . .			81	87	168
Psychosis with psychopathic personality . . . . .			—	1	1
Psychosis with feeble-mindedness . . . . .			5	4	9
Undiagnosed psychosis . . . . .			1	1	2
Without psychosis . . . . .			4	6	10
Without psychosis (for intelligence rating)					
Superior intelligence . . . . .			7	10	17
Adults . . . . .	—	6	6		
Adolescents . . . . .	4	4	8		
Children . . . . .	3	—	3		
Average intelligence . . . . .			37	58	95
Adults . . . . .	2	11	13		
Adolescents . . . . .	7	27	34		
Children . . . . .	28	20	48		
Retarded and borderline intelligence . . . . .			51	47	98
Adults . . . . .	4	12	16		
Adolescents . . . . .	14	16	30		
Children . . . . .	33	19	52		
Feeble-mindedness . . . . .			30	39	69
Adults . . . . .	2	11	13		
Adolescents . . . . .	3	8	11		
Children . . . . .	25	20	45		
Reading problem . . . . .			6	3	9
Stammering and other speech defects . . . . .			2	1	3
Diagnosis deferred . . . . .			52	72	124
Neurotic child . . . . .			21	17	38
Normal child . . . . .			8	9	17
Conduct disorder . . . . .			18	20	38
Chorea . . . . .			1	—	1
Poliomyelitis . . . . .			1	—	1
Tinnitus . . . . .			1	—	1
Post-encephalitis . . . . .			—	2	2
Organic disease of central nervous system . . . . .			2	3	5
Central nervous system lues . . . . .			1	—	1
Parkinson's diseases . . . . .			1	1	2
Endocrine . . . . .			2	—	2
Psychopathic personality with mental deficiency . . . . .			10	10	20
Personality defect . . . . .			3	12	15
Epilepsy . . . . .			6	11	17
Constitutional psychopathic inferiority . . . . .			3	—	3

Arteriosclerosis . . . . .	1	—	1
Chronic arthritis . . . . .	2	—	2
Rheumatic heart disease and chorea . . . . .	—	1	1
Gonorrhoea . . . . .	1	—	1
	400	470	870

Disposition

	Male	Female	Total
Boston Psychopathic Hospital . . . . .	50	58	108
Out-Patient Department . . . . .	187	163	350
State hospital advised . . . . .	4	13	17
General hospital advised . . . . .	2	2	4
Agency report . . . . .	122	219	341
Court report . . . . .	27	9	36
Relatives . . . . .	4	2	6
Waverley advised . . . . .	—	1	1
Wrentham advised . . . . .	3	3	6
Habit clinic . . . . .	1	—	1
	400	470	870

Visits

Total visits . . . . .	2,850
New patients . . . . .	2,036
Out patient department . . . . .	1,968
Syphilis clinic . . . . .	68
Old patients . . . . .	814
Clinic days . . . . .	300
Average number of visits per day . . . . .	9

Number of patients and number of visits per year					
Old Patients	Visits	Total	New Patients	Visits	Total
105	1	105	519	1	519
56	2	112	147	2	294
29	3	87	67	3	201
13	4	52	35	4	140
14	5	70	31	5	155
4	6	24	19	6	114
4	7	28	10	7	70
2	8	16	13	8	104
1	9	9	5	9	45
2	10	20	5	10	50
3	11	33	6	11	66
3	12	36	4	12	48
1	13	13	3	13	39
1	15	15	2	14	28
1	17	17	1	15	15
1	23	23	1	20	20
1	25	25	1	28	28
1	29	29	1	32	32
1	30	30			
1	70	70			
244		814	870		1,968

As in previous years, clinical staff meetings for the discussion of particular cases studied in the clinic were held on Mondays and Wednesdays throughout the year. These are presided over by the director and are an important factor in stimulating the work of the staff as well as the students of medicine, psychology, sociology, and nursing.

Executive staff meetings have again been held on Friday mornings. The cases studied during the week are discussed medically, as well as problems of policy and administration. Representatives of social and other agencies, school teachers,



and probation officers are invited to these conferences. The interchange of ideas and opinions as to treatment, advice, and follow-up work at these conferences make for a more understanding relationship between the clinic and referring agencies.

I wish to record here the wholesome spirit of cooperation of all the staff members of the various departments of the hospital, which has contributed largely to the successful handling of the many difficult and patience-taxing problems coming before a neuropsychiatric clinic.

Respectfully submitted,

OSCAR J. READER,

*Chief of Out-Patient Depart.*

## REPORT OF THE CHIEF MEDICAL OFFICER

*To the Medical Director of the Boston Psychopathic Hospital:*

I hereby submit the report of the medical service.

The general routine of the hospital has continued much the same during the past year. It seems worthwhile in this report to call attention again to the great variety of cases admitted to this hospital, and to the many demands made upon the diagnostic and treatment facilities of this institution. Many persons do not realize that a hospital of this type is called upon to treat all types of medical and surgical conditions which may be present as a cause of the mental disorder, or may develop as complicating factors.

For this reason a series of illustrative cases are quoted showing some of the important medical problems which arise in connection with these cases.

K.L., a married man of 37, was brought into the hospital with the statement that he had struck his wife twice, and had beaten his children severely. He was sent in by his family physician. Further study showed that the patient had a fall about eleven months ago, that he was unconscious for three days, and had a fracture of the lumbar vertebra. Since then he suffered from pain in the back and legs. He became more irritable, particularly when he was suffering from his back. It was also noted that the patient's features had been becoming more coarse for the past four years, and that his nose and hands had grown bigger. This case, although sent to a psychopathic hospital, presented problems of neurology and endocrinology. The patient was developing an acromegaly which was linked up with the personality change. The effect of the fall and the invalidism following it required evaluation. In the study of this case, it was necessary to have careful x-ray examinations, a study of the spinal fluid, and a study of the fields of vision. For this latter examination a perimeter is necessary. The one which the hospital has at present is very old. A much more accurate study of the fields of vision could be made with a newer type of perimeter. A well-equipped room for doing eye examinations would be desirable.

E.W., a widow of 37 years, was brought into the hospital with the statement that she was excitable and threatening to jump out of windows. Further examination showed that the patient had a fairly typical depression which had come on gradually following the sudden death of her husband about three years before. She was somewhat undernourished, and there was a question of her having had a syphilitic infection. Serological examination ruled out the latter. Her treatment in hospital consisted of psychotherapy, hydrotherapy and occupational therapy. She responded to all three of these methods and was so improved at the end of six weeks that she was able to go home and take her place in the community. She has continued to come back three mornings a week for hydrotherapy, and two mornings a week for occupational therapy. She finds that she has derived great benefit from such treatment and wishes to continue it.

G.B., a married man of 54, was sent into the hospital by his physician with the statement that he was a case of hysteria, that he complained of some difficulty in walking, that the neurological examination was entirely negative, and that there were many psychological causes for his trouble. When first admitted the patient complained of weakness, stated that he could not walk, but when reassured was able to do so. In a short time he developed many neurological symptoms. A diagnosis of brain tumor was made. A neurosurgical consultant agreed with this diagnosis. Surgical interference was not felt advisable. Autopsy confirmed the

diagnosis of brain tumor. This case illustrates some of the difficulties of diagnosis between organic and functional conditions, and the necessity of careful neurological studies on all patients.

C.L., a married woman of 38, was sent into the hospital by the court. She had been arrested, charged with drunkenness. In this case an elaborate study was made by the Social Service Department in which the patient's previous court record, the examination by the court psychiatrist, and interviews with three informants, three social agencies, and two hospitals were obtained. There was a question of fainting attacks of an obscure nature. The patient had a great many physical complaints. The question of epilepsy was considered. There was considerable question as to whether there was some heart disease which was responsible for the fainting attacks. X-rays of the heart were made and the patient was sent to a general hospital for an electrocardiogram. These examinations proved to be essentially negative, and the case was finally considered to be that of an unstable feeble-minded woman who used alcohol to excess and quarreled with her neighbors. This case illustrates the various ways in which the problem is studied from the social service angle, from the general medical standpoint and from the psychological standpoint, the special tests by a psychologist confirming the diagnosis of feeble-mindedness. An electrocardiograph would be of considerable service in diagnosing some of the obscure cases which come to this hospital. At present, the only possible thing to do is to transport the patient to another hospital for such studies. In many cases this is not practical. It is hoped that this hospital will be able to secure an electrocardiograph in the near future.

W.B., a married man of 39, was admitted to this hospital having been transferred from a general hospital. Mentally, he was recovering from an acute alcoholic hallucinosis. Physically, there was a fracture of the left leg which was in a cast. While in this hospital the patient required not only the ordinary treatment of an alcoholic psychosis, but special surgical treatment for the fracture, his cast requiring to be changed.

R.R., a married man of 50, was admitted to the hospital with the statement that he had not worked for several years, that he felt run down, and that he was doing a number of queer, odd things. He also had seizures in which he was unconscious. This case was one of organic brain disease, and brain tumor, arteriosclerosis, syphilis and encephalitis were considered. Encephalograms were made, but no conclusive diagnosis was reached and the patient was transferred for further study and treatment to another hospital. This case illustrates again the necessity of careful neurological examinations, and the importance of x-ray examination in the determination of the diagnosis. Fortunately, this hospital is equipped with an excellent x-ray outfit and makes frequent use of encephalography. Ideally this patient should have had a ventriculogram done in a neurosurgical ward, where immediate operation could have been carried out if a diagnosis of brain tumor was made. It cannot be expected that this hospital will be equipped to do operative work for brain tumor; such patients indicate the need of a psychiatric ward in general hospitals. This patient was too disturbed and uncooperative to be looked after in the ordinary ward of a general hospital.

N.D., a married woman of 59, was admitted to the hospital with the statement that she had been confused for the past two weeks, had had dizzy spells, and that she had become quite excited and noisy and imagined that people were trying to harm her. On admission it was found that her heart was markedly enlarged and decompensated.

Under treatment, by rest in bed and digitalis, the patient improved markedly, both physically and mentally. This case illustrates a type of mental disorder symptomatic of an underlying physical condition, where the essential problem is the treatment of the physical condition. However, because of the mental condition the patient cannot be cared for in a general hospital unless there is a psychiatric ward.

F.W., a single man of 41, was brought into the hospital with the statement that he had been drinking, that he had possibly fallen down while intoxicated, and that he was complaining of intense pain in the head with dizziness, and weakness of the legs. On admission he was in a semi-stuporous condition, showed numerous neuro-



logical signs which indicated an organic brain disease. The patient died in less than 48 hours of a subdural hemorrhage.

A.H., a widow of 41, was sent to this hospital from a general hospital with the statement that she had convulsions and delirium following a fall, and that she was so noisy and violent she could not be cared for in a general hospital. Examination of this patient gave no definite neurological findings. X ray of the skull was negative as well as the examination of the spinal fluid. Under good nursing care the patient cleared up in ten days so that she was able to return home. She still complained somewhat of headache, and it was considered that she had probably had a fall with a slight internal hemorrhage which had produced the symptoms.

C.F., a boy of 11½ years of age, was sent into the hospital from an orphan's home with the statement that he would not cooperate in school work and was making poor progress, that he showed no interest in his work and no sense of responsibility. On admission, the physical examination showed poor nutrition and a question of pulmonary tuberculosis. After x-ray studies and further examinations, it was felt that tuberculosis was not present. A series of special psychological tests showed that the patient was of normal intelligence, but that he was a case of strephosymbolia, that the right eye and left hand were dominant. The fact that the boy was a non-reader accounted for a great deal of his trouble. A plan was worked out for the boy to receive special instruction which, it was felt, would insure his overcoming the trouble to a large extent. There was, however, very little cooperation from the institution which sent him to this hospital; the head of the institution would not keep his appointment with the social worker of this hospital, he tended to treat the matter as a joke. As a result a plan was worked out for the patient to be transferred to another institution for children where he would receive special training. This case illustrates some of the complications which arise in trying to treat patients.

R.R., a boy of 19, was admitted to the hospital with the statement that he had been suffering for a year and a half with what had been called a chronic meningitis. He had had a fall on his head and had apparently been unconscious. Details concerning this were not available. When admitted to this hospital he showed many neurological signs which were suggestive of meningitis. X-ray examination and blood cultures were carried out. The spinal fluid showed 128 cells, 54 of which were small lymphocytes, total protein 396, there was a low spinal fluid sugar and changes in the colloidal gold. Cultures of the spinal fluid were negative. As there might be a walled-off process in one of the ventricles, arrangements were made for a neurosurgeon to trephine the skull and tap the ventricle. Antimeningitis serum was administered, but the patient grew steadily worse and died after 14 days in the hospital. The post mortem examination showed a basal meningitis with a hydrocephalus of some months' standing.

R.L., a divorced man of 54, was sent in by the court accused of larceny. When first admitted, he gave an account of his past life which included graduating from college and having inherited \$750,000 from his father. A careful check-up on his record by the Social Service Department showed that this was not true. A long criminal record of some 23 arrests in 12 different states was found. After many interviews, and careful study it was felt that the patient did not have a psychosis but was a psychopathic personality, able to stand trial.

V.S., a married woman of 31, was admitted to this hospital after having been in two general hospitals. At the first hospital she was regarded as merely nervous; at the second hospital it was felt that she was either a case of dementia praecox or encephalitis, probably the former. Because of the fact that she kept jumping out of bed and could not be controlled, the general hospital did not feel able to look after her. On admission, the physical examination was essentially normal. She was mute, resistive, refused to eat, would wet and soil herself. She gradually developed a quite excited state. The blood sugar went up to 236 mgs., sugar and casts appeared in the urine. The patient developed a double lobar pneumonia, and certain neurological findings appeared which made the diagnosis of encephalitis seem probable. The patient died 12 days after admission. Autopsy was refused.

O.B., a married woman of 50, was admitted to this hospital with a diagnosis of involution melancholia. The condition had been coming on for several months.

She had been committed to another hospital for mental diseases where she had improved to some extent. The family then removed her and took her to a Christian Science Home. There her condition became so much worse that she was finally brought to this hospital. On admission she was very restless, uncooperative and showed the picture of an organic delirium. She had a temperature of 103.4. Various medical and surgical consultants saw the patient, and a tentative diagnosis of pneumonia was made. An oxygen tent was used which made the patient more comfortable. She died 21 days after admission. Autopsy showed pulmonary abscesses and bronchopneumonia. This case also illustrates the need of a portable x-ray machine. The question of a central pneumonia or lung abscess was considered early in her sickness, but she was felt to be too sick to remove to the x-ray room for x-ray studies. A portable machine would have enabled one to take the x-ray at the bedside.

P.G., a married woman of 30, was sent into the hospital from the court with the charge of carrying a loaded gun and threatening to kill her father. This case necessitated an elaborate study by the Social Service and attempts to evaluate the statements of various members of the family who took sides in the difficulty between the patient and her father. It was concluded after intensive study that the patient was suffering from a definite psychosis of a paranoid type. The court finally allowed the patient to be placed on parole on condition that she should leave the state, as it was felt that her paranoid ideas applied only to her father.

The hospital has during the past year received an increasing number of cases from the courts; 237 cases were committed to this hospital by the courts under Section 100; of this number referred by the courts, 72 or approximately one third were committed as insane to state hospitals.

In checking over the different courts, it is of interest that the court which employs two psychiatrists sent in 56 cases, 27 of whom were committed. This higher percentage of committable cases is unquestionably due to the fact that there was more careful selection in the cases sent here, and indicates that courts which do not employ psychiatrists probably send a certain percentage of cases for observation to this hospital when there is no need of such observation. This demonstrates the value of a court psychiatrist in examining persons, and picking out the cases that require special study in hospital.

The number of volunteer workers and fellows at the hospital has increased, so that at the present time the facilities of the hospital are fully utilized. Three doctors from the staffs of other Massachusetts State Hospitals have worked here for brief periods as a part of their training. There are at present eight fellows in psychiatry working in the hospital. This has allowed a great deal more research to be carried out.

Since the Veterans Bureau has discontinued the use of our Out-Patient Department for its afternoon clinic, this space has been available. Because of the overcrowding of the Out-Patient clinic mornings, it seemed worthwhile to attempt to inaugurate an afternoon out-Patient clinic for children. This has been started during the past few weeks. Cases are referred by appointment only, and it is hoped to carry out some intensive work with children. This does not interfere with the regular morning out-patient clinic which still continues to see all variety of cases, including a number of children. At present the clinic is open three afternoons a week.

The greatest need is for more psychiatric social workers, and with the limited number available at the hospital the work of the afternoon clinic will be definitely curtailed and handicapped unless there is some way of providing for this need.

The report of the dentist follows:

Patients examined . . . . .	1,709
Patients treated . . . . .	1,004
Extractions . . . . .	1,016
Fillings . . . . .	509
Prophylaxis . . . . .	222
Other treatments . . . . .	267

In our studies of dental x-rays, 36% showed definite infection; 21% were doubtful; 29% were entirely negative. The remaining 14% were negative for infection,



but showed impacted teeth. X-ray examination in one case showed a large cyst of the mandible.

In the impacted teeth the order of frequency was: lower third molars, upper third molars, upper cuspids, and bicuspid.

Examination of smears for Vincent's angina were positive in two cases.

The report of the x-ray laboratory shows increased use of this department. An endeavor has been made to make more intensive studies on some of our patients, to utilize more fully fluoroscopy, to have our x-ray consultant meet with the doctors and discuss the interpretation of the films.

*X-ray Report for Year December 1, 1931-December 1, 1932.*

	M.	F.	T.		M.	F.	T.
December . . . . .	35	23	58	June . . . . .	40	16	56
January . . . . .	26	19	45	July . . . . .	31	18	49
February . . . . .	14	11	25	August . . . . .	23	14	37
March . . . . .	31	25	56	September . . . . .	17	15	32
April . . . . .	27	26	53	October . . . . .	38	16	54
May . . . . .	24	23	47	November . . . . .	26	17	43

Male, 332; female 223, total patients 555.

Respectfully submitted,

KARL M. BOWMAN,

*Chief Medical Officer.*

REPORT OF THE BIOCHEMICAL LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

The first full year of operation of the Biochemical Laboratory under its present regime ended on November 30, 1922. It seems appropriate, therefore to compare the quantity and character of the work done in the year 1932 with that of the year 1922. Certain changes in the routine have been made, which accounts for the increase in the number of examinations of stained blood films; in 1922 each patient on admission had a hemoglobin determination and a blood smear, whereas now the white blood count is substituted for the smear. The accompanying table shows the work done by the clinical laboratory force (the student internes) except the spinal fluids and basal metabolisms. When one considers that the annual admission rate is essentially constant, the increase indicates a more extensive laboratory study of our patients.

TABLE I

*Comparison of clinical laboratory work done in comparable periods in 1922 and 1932 (one week: 43 admissions).*

<i>Examination</i>	<i>1932</i>	<i>1922</i>
Urine . . . . .	107	72
White blood counts . . . . .	87	8
Red blood counts . . . . .	10	
Hemoglobin . . . . .	53	45
Differential counts . . . . .	2	
Gastric analysis . . . . .	1	1

TABLE II

*November 1, 1931 to November 1, 1932*

Total specimens cerebrospinal fluid . . . . .	1,895
Outside fluids . . . . .	538
Treatment cases . . . . .	287
Gold sol readings . . . . .	1,895
Positive gold sols . . . . .	630
Total protein determinations . . . . .	1,266
Sugar determinations . . . . .	1,004
Special analyses (NaCl and Ca) . . . . .	17
Total specimens blood . . . . .	476
Non-protein nitrogen . . . . .	280
Sugar . . . . .	396

Special	214
Bromides	77
Urea	18
Uric acid	34
Creatinine	27
Calcium	6
Cholesterol	12
Phosphorus	3
Serum proteins (total, albumin and globulin)	3
Total analyses (exclusive of gold sols)	3,178

It was with a great deal of surprise that we discovered how many spinal fluids were being done (Cf. Table II). The medical student internes who spend three years in residence at this hospital, all have some part in all the spinal fluid examinations. This, therefore, represents an experience of 5,000 to 6,000 spinal fluids for such a man. It may be emphasized that no comparable training is available elsewhere. Inasmuch as most of our students ultimately become internes in general hospitals, the other work is of a less unique character than the spinal fluid examinations and basal metabolism determinations. In general, each man has one year of work at the latter type of determination which in 1932 totalled 264 determinations. This represents a larger experience, as so many of our patients require numerous attempts before satisfactory readings can be obtained. It is excellent training for our internes to learn to secure the co-operation of our very difficult patients.

As has been said before in these reports, it is our feeling that this type of service is an ideal one for the men who must help themselves through medical school. That this is recognized by the student body is shown by the fact that we have never wanted for applicants of the highest type in excess of our needs. In times of economic depression, the demand for positions such as these becomes very large. As a consequence, we are in a position to help deserving students whose funds have been curtailed by prevailing economic conditions. The routine work is always well done. We have always encouraged the internes to pursue some research activity in conjunction with whatever was going on in the laboratory, and some have done excellent work in this way. In the past two or three years, however, we have had a considerably smaller number with a flair for investigation. However, one of the men has proceeded on an independent problem, consisting in an intensive study of the low basal metabolic rates found in psychiatric patients, which he is carrying through to a very successful conclusion.

The remainder of Table II indicates the work done by the junior chemist. In addition to the clerical work, it will be seen that she performs something over 3,000 analyses a year which averages about 8 a day. Were these all the same, it would represent a small amount of work, but they are not, and cannot be grouped so that the same type analysis falls on the same day. Some of them are quite laborious, especially when done in small numbers at long intervals. The work of keeping up standard solutions occupies no small part of her time. She does the chemical work on the spinal fluids while the internes do the globulin, cell count and gold sol determinations. I have not included a tabular view of the chemist's work in 1922 as this was but a fraction of that done at the present time in variety and a little over a third in quantity.

In looking backward over the past decade, one notes that the investigations undertaken have largely centered about the interests of the undersigned and, as a result, have a distinct pharmacologic and metabolic taint. Many of them have no direct relation to psychiatry except insofar as metabolic reactions are grist to the mill of the modern psychiatrist. In the past year, in accordance with the plans mentioned in my last report, a new policy has gradually come into being, which relates the laboratory more closely to the work of the psychiatrists of the hospital. This refers to the use of the laboratory by the clinical staff in solving their special problems. There has been a special effort made this year to develop this phase of our work. Dr. Bowman, of course, continues his use of the laboratory in his investigation of the treatment of patients with endocrine substances.

Before coming to us this year, Dr. Michaels made some studies on the relationship between calcium and potassium in psychiatric patients. He is now engaged in extending these studies to include simultaneous studies of this and other relationships in the blood and spinal fluid.

Dr. Fleming has begun a study of alcoholic patients from a new angle and will utilize some of the newer methods for the determination of alcohol in body fluids.

Dr. D'Elseaux has continued his studies of the reaction of patients to increasing quantities of carbon dioxide in the inspired air. By his energy, this study has been extended until a very well-equipped laboratory for the study of blood gasses is proceeding with various researches under his direction. This will be reported in greater detail by the Department of Therapeutic Research. In a budgetary sense, the unit of Dr. D'Elseaux lies between that Department and this laboratory, though the active direction remains in the Department of Therapeutic Research.

It is our feeling that this is only a small beginning, but a hopeful one, in the direction in which we wish to develop the laboratory in the next decade. It is necessary that our work be tied very closely to clinical psychiatry. The most effective method to accomplish this is to stimulate the younger psychiatrists to use the laboratory and to think of their problems in the terms of internal medicine.

In relation to the staff, Mrs. Bishop has been succeeded as junior chemist by Miss Mildred G. Gray, who came to us from Dr. Higgins' Laboratory at the Massachusetts General Hospital. Miss Gray has easily fulfilled all the requirements of her position and has maintained the very high standard set by her predecessors. The student-interne system continues to work satisfactorily as far as the routine clinical work of the hospital is concerned. According to the plans of the Chief Executive Officer, our internes will have in the future remodelled and better quarters than has hitherto been the case.

Our physical equipment remains the same except for the addition of two new microscopes. I find that it is exactly ten years since the last microscopes were purchased. There are no immediate laboratory needs.

As Consultant in Medicine, I believe that the hospital should have an electrocardiograph. We see a surprising number of cardiac patients. Since our medical histories are apt to be inadequate, due to the mental condition of the patients, we should have every aid in diagnosis and guide to treatment that can be supplied. The interest of the staff in the physical condition of their patients has shown a tremendous increase. Dr. Bowman, Chief of Staff, and the two Chiefs of Service, Drs. Howard and Fleming, are to be highly commended for their activity in this direction. It is always a pleasure to bear witness to the enthusiastic and stimulating co-operation of the Director and also the Executive side of the hospital. The Director steadily keeps in mind the relationship between physiological mechanisms and mental status and, in his stimulating fashion, continues to pose questions and problems for the laboratory to attack.

Our publications since the last list, have been as follows:

"The Action of Cinchophen"; *Journal of Pharm. & Experimental Therap.*, vol. XLII, No. 4. August, 1931. by G. P. Grabfield, and J. H. Pratt.

"A Note on the Relation Between Blood Cholesterol and Basal Metabolic Rate." *N. E. Journal of Medicine*, vol. 205, No. 24, December 10, 1931. By G. P. Grabfield and A. G. Campbell.

The staff for the past year has been as follows:

*Junior Chemist:* Madeline B. Bishop, September 1931-June 1932. Mildred G. Gray, June, 1932.

*Student Internes:* J. R. Frazee, M.D., September 1931-December 1932. K. B. Olson, September 1931-October 1932. H. C. Jackson, September 1931. T. R. Ingham, September, 1931. D. B. Hall, September 1932. M. J. O'Brien, December 1932.

Respectfully submitted,

G. PHILIP GRABFIELD,  
Chief Biochemist.



## REPORT OF THE PSYCHOLOGY LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

In a report some years ago, a classification of the laboratory's activities was made under the heads of clinical, psychometric, teaching and research; and this classification has in some sort served as a frame of reference for subsequent reports. In the earlier years of the present laboratory organization it was endeavored to keep a certain balance between these different fields of functioning, but any one is capable of absorbing the laboratory's entire work capacity, so that some must at least temporarily be held in check that others may develop. An emphasis upon certain research projects in the field of learning about four years ago, led to the accumulation by the writer of a considerable body of experimental records, but demands of more immediate nature have led the evaluation of this material to proceed but slowly. The demands of teaching have become more insistent, and a functioning of the research spirit in this setting has led to experimentation with various teaching devices, leading to results of interest both for teaching method and the psychology of symbolism which is involved. The courses given every three months to small groups of affiliate nurses have been of great service in this respect, and are being thereby steadily improved. A short text (about 25,000 words) has been specially prepared for these classes, and will be available in manuscript form to the present group. The writer also organized a series of over 500 slides, for this as well as more advanced levels of teaching, and additional projection apparatus has been installed. If the now critical need of more space can be met, there can be made a physical set-up very satisfactory for the laboratory's ordinary teaching functions.

The revised form of the Alpha test as constructed in the laboratory has now been published (in one of the forms only) by the Psychological Corporation, New York. Agencies of the Commonwealth desiring to use the test can ordinarily obtain a few copies from this laboratory, but for any quantity should communicate with the Gardner State Colony. To agencies of the Commonwealth, the "Short Alpha" mentioned below, is similarly available. The laboratory's adaptation of the Army Beta technique continues to function usefully, particularly between the "mental age" levels 10-14. Agencies desiring to use it as a convenient check or substitute for performance tests, should communicate with the laboratory regarding special material and instructions thereon. The new and authoritative pre-school scale developed by Goodenough and Anderson has also been introduced, as well as an improved recording system for the more distinctive portions of the Kuhlmann-Binet system.

The laboratory has been fortunate in a leading part in the development of the Rorschach test, undertaken with the coming to the laboratory of (now) Dr. S. J. Beck in 1929. This year he obtained his doctorate at Columbia with a thesis in this field, and remains during the current year as research fellow in the Department of Psychiatry, Harvard Medical School, devoting full time to this work. It has conspicuously attracted the attention of the medical staff, and been helpful in the integration of psychological and psychiatric interests.

Mr. Nathan Goldman, an advanced graduate student at Clark University, joined the laboratory staff on Dr. Beck's resignation (the only staff change of the year), bringing to it a background of experimental psychology for which the physical resources of the laboratory afford but limited scope. In addition to the routine of his office, he has arranged a research project in the establishment and extinction of conditioned reflexes as related to factors like intelligence level, and psychotic states. He has also been effective in devising always much needed further economies in laboratory space.

Mr. C. R. Atwell has carried to completion his work on an abridgment of the Alpha test ("Short Alpha") revision, obtainable as mentioned above, but not in course of publication. Various points of a research nature, growing out of the work of standardizing these new procedures, will be prepared for publication as time permits. Mr. Atwell also undertakes certain extra-mural psychometric work required for prisoners, with which he has had considerable experience.

The work of Miss Viola Jones with young children, in the Out-Patient Department has attracted increased attention, and arrangements are being made to provide her with some volunteer assistance in caring for it. Among these activities



is included a psychometric study of thyroid therapy among cretin children, undertaken in collaboration with Dr. Gerald Hoeffel of the Children's Hospital. A small motion picture camera, purchased several years ago in connection with studies of emotional expressions, has been of considerable use to her. A group of children presenting distinctive personality problems (particularly abnormal play life) is being followed intensively with reference to possible prepsychotic features. If the child guidance service of the Hospital develops beyond its present proportions, it will considerably reinforce the need for an additional psychologist, as suggested in the report of last year.

Appreciative mention is due to the work during the past year of two volunteer assistants, Mrs. Virginia Walker, who did much of the work on the series of slides now available to the laboratory, and to Miss Prudence MacKissock, who was engaged chiefly in bibliographic work.

The considerable secretarial work essential to the above activities, for some years under the conduct of Miss Katharine R. Kelly, continues at its previous high level.

The integration of laboratory's work, other than routine, with the interests of the psychiatric staff, is a problem ever present because of shifting personnel, and the limited time in which insight into its workings, largely foreign to medical education, must be acquired. The services of Dr. Beck in this connection have already been mentioned. Besides occasional presentations of its work at formal meetings of the medical staff, there have been organized weekly teas and conferences in the laboratory quarters, to which members of the medical and social service staffs are invited. The group functions somewhat as a seminar, but there is no aim at continuity in topics from meeting to meeting.

The writer has continued his work with a committee of the Social Science Research Council, which has organized a seminar for a group of about fifteen fellows from foreign countries, now being held at Yale University under the direction of Professor Sapir. A brief series of lectures was given during the spring at the Rhode Island State Hospital. During the summer, the two courses given in 1929 were given as revised, at Teachers College, Columbia University, the value of this experience to the various teaching functions of the laboratory being difficult to overstate. There have continued such routine cooperative activities as with Child Development Abstracts, Psychological Abstracts, and the Psychological Index.

Publications have been as follows:

Beck, S. J. "The Rorschach Test as Applied to a Feeble-Minded Group." Columbia University, Archives of Psychology, No. 136, 1932.

Wells, F. L. "Army Alpha — Revised." The Personnel Journal, vol. X, No. 6, April, 1932, 411-417.

Wells, F. L. "Evaluation of Personality and Character Tests." American Journal of Orthopsychiatry, vol. II, No. 4, October, 1932.

Respectfully submitted,

F. L. WELLS,

Head Psychologist.

## REPORT OF THE NEUROPATHOLOGICAL LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

Since the beginning of the Hospital, June 1912, there have been 283 autopsies, an average of about 14 a year: For the most part these have been done by the pathologist and student interne for the Department of Mental Diseases who are quartered here. This year there were 31 deaths; of these 8 autopsies were done by the medical examiner and 12 done by the officers of the Department, a percentage of 64. Those done by the medical examiner showed death to have come to these patients from infections following suicidal attempts in three, frank suicide in one, and pneumonia in three; in one as yet the cause is unknown. Four were women and four men, and the majority (6) were under 40 years of age.

Of the 12 done by the writer or substitute, 10 were males, and two were females. Their ages varied from 19 to 58 and the majority were due to frank infections (8), of which two were tuberculous. In two cases direct inoculation of brain material into media was attempted by the Department of Bacteriology at the Harvard Medical School, to substantiate an opinion that they suffered from Encephalitis

Lethargica, but no positive results were obtained. Two had pulmonary infarctions, one an organic heart lesion, and one was one of the unproven encephalitis cases. The major trunk organs and the spinal cord are sectioned and described, as well as representative cortex sections. One epileptic who died of lobar pneumonia and cerebral hemorrhage had palpable firmness in the cornua ammonis.

Demonstrations of brain anatomy have continued every three months to the nurses.

Mr. A. E. Nielsen, the interne in bacteriology, reports: blood cultures, 17; miscellaneous cultures, 40; Widal's reaction, 4; autovaccine, 1; darkfield examinations, 2; miscellaneous smears, 33; and he also assists at autopsies and in care and examination of tissues.

Respectfully submitted,

MYRTELLE M. CANAVAN,  
*Pathologist, Department of Mental Diseases.*

## REPORT OF THE DEPARTMENT OF THERAPEUTIC RESEARCH

*To the Medical Director of the Boston Psychopathic Hospital:*

Probably the most important thing to report this year is that there has been developed a relatively stable organization capable of handling not only its own investigative problems but also prepared to offer assistance to the various members of the hospital staff who may have special problems with a bio-chemical angle. A reasonably adequate biochemical laboratory has grown up. This was started a couple of years ago in connection with studies on the effect of the inhalation of carbon dioxide in stuporous conditions. Dr. Frank C. d'Elseaux, a Commonwealth Fund Fellow in Psychiatry, undertook the study of this subject, as has been noted in previous reports. Receiving training and assistance from Doctors Henderson and Dill of the Fatigue Laboratory of Harvard University, Dr. d'Elseaux developed a laboratory for the study of various bio-chemical problems at the Boston Psychopathic Hospital. Fortunately, arrangements have been made so that on the conclusion of his Commonwealth Fund Fellowship, November 1, 1932, Dr. d'Elseaux becomes a Fellow in Psychiatry at the Harvard Medical School, and continues his work at the Hospital.

In addition to Dr. d'Elseaux's work on the carbon dioxide inhalation in the stupors, which was reported at a meeting of the American Neurological Society at Atlantic City in the Spring of 1932, a number of studies have been carried on. Among these may be mentioned a consideration of the acid-base balance in the hospital patients which indicates that some of these patients are more acidotic than normal individuals. Dr. d'Elseaux considers it fair to assume that the change from the normal acid-base balance is due to a diminished response of the respiratory centre either to the increased acidity, or to the increased carbon dioxide content of the blood. The group on which these studies have been made is being enlarged and an attempt is being made to understand this phenomenon.

Studies of the oxygen-combining power show that there are certain patients who lack the normal degree of adaptation in the oxygen carrying mechanism. Further studies in this field are to be undertaken.

Studies have been made on lactic acid metabolism, the results of which seem to refute some of the currently accepted theories as to the effect of anoxemia, acidity of the blood, and exercise on the metabolism of lactic acid.

As indicated, Dr. d'Elseaux's work is to be continued not only along the lines already mentioned, but reaching out into other problems. Dr. d'Elseaux has in his laboratory two well-trained and experienced bio-chemical technicians, Miss Peterman and Miss Marsh.

Dr. S. H. Epstein continues his activities and has been very largely responsible for the conduct of the neurosyphilis clinic. In addition to this work, he has undertaken several other studies. He has investigated the effects of some of the non-volatile anesthetics such as pento-barbital, sodium amytal, and avertin, in the control of excited patients and especially of their value in the facilitation of lumbar punctures. He has also developed a technique for the utilization of non-volatile anesthetics in the performance of encephalography; at the same time developing, in association with Dr. Hansfig, an orthopedist, a table for the performance of



encephalography under anesthesia; and with the X-ray Department a technique for taking roentgenograms with the patient in a sitting position. One of the difficulties with encephalography has been the marked discomfort suffered by the patient. In addition, the work is made difficult by vomiting on the part of the patient, which interferes both with the injection of air, and the taking of the roentgenograms. Under the anesthesia as used by Dr. Epstein, these difficulties are almost entirely obviated. Reports of this work have been published in medical journals.

Dr. I. Kopp has been associated with the Department during the year, and has assisted Dr. Epstein in his work. Dr. Kopp has devoted himself in addition to the routine problems of the clinic, to various studies related to hyperpyrexia induced by diathermy and now has ready for publication a paper on metabolic rates at different temperature levels in hyperpyrexia induced by diathermy. He has also studied the effects of some of the anti-pyretic and sedative drugs in relation to diathermy fever.

In the report of the previous years, attention was given to work undertaken at the hospital on epilepsy, especially in regard to dehydration and acidosis. It was stated that this was looked upon as a long-term investigation. Unfortunately, because of the lack of funds, the ward in which these studies were being made had to be closed, and the studies discontinued. It is our hope that at a later date a continuation of these studies may be undertaken. It may be stated at this time, however, that the results of careful chemical studies on epileptic patients having ketogenic diets indicate that even the "most intense acidotic" diets fail to alter the acidity of the patient more than a trifle, and that simple dehydration gives rise to as much increase in acidity as the acidotic diets.

The clinic devoted to the treatment of neurosyphilis has continued to increase in size. A study of cases of general paresis treated with malaria between February, 1925, and February, 1931, has been completed in the current year. The series consist of 174 patients. Briefly stated, the study shows that 65 of the 174 patients, or 37.3% are improved and at work while 22 more or 12.6% are improved sufficiently to be living in the community but are not self-supporting. In other words, practically fifty per cent of these 174 paretic patients have been able to return to the community. Another 22, or 12.6%, while improved, have had to remain hospitalized for various reasons, chiefly economic, but nearly all of them are relatively adequate workers under institutional conditions. It should be mentioned that these results have been obtained not by malaria alone, but by malaria therapy assisted by drugs such as tryparsamide, arsphenamin, and bismuth. Studies of the effect of tryparsamide treatment without malaria are now to be made as well as studies of the effect of treatment in other types of neurosyphilitic patients.

Since March, 1931, investigations have been made on the effectiveness of fever produced by diathermy in the treatment of neurosyphilis. This period has been too brief to allow any final conclusions. However, a brief summary may be given of the work from March, 1931 through May, 1932. During this period thirty cases of neurosyphilis were treated by diathermy, consisting of 19 cases of general paresis, 3 of tabo-paresis, 5 cases of tabes with visceral crises, 2 cases of tabes without crises, and one case of cerebral syphilis. Clinical improvement was noted in eleven patients, or 36.6% of this group. Fourteen patients, or 46.6% continued to be confined in a mental hospital. Two patients died in the course of a few months. Of the five tabetic cases with visceral crises, two may be considered symptomatically improved, the other three patients continuing to have recurrent attacks of gastric crises. It was noted in one case that the abdominal pain was invariably relieved during diathermy treatment and for a few hours thereafter.

A word of appreciation is due to Mr. Thomas McHugh, R.N., for his conscientious work as technician in charge of the diathermy treatment.

Under Dr. Epstein's supervision, a new filing system for cases of neurosyphilis has been installed. This consists of cross index cards by diagnosis and name, according to types of therapy, and results, social status, etc. This system covers approximately a ten-year period of 1922 onward, and allows for easy reference to all of the experiences in the handling of cases of neurosyphilis. The installation of this rather elaborate index was made possible by volunteer service of two workers,

namely, Miss Rena Richter and Miss Oona Ryan, whose assistance is greatly appreciated and hereby acknowledged.

Dr. Merrill Moore, a Commonwealth Fund Fellow in Psychiatry, has devoted part of his time and energy to studies in neurosyphilis and with Dr. Houston Merritt, of the Boston City Hospital Neurological Staff, is preparing a treatise on neurosyphilis.

The following table will give a statistical summary of the work done in the treatment of neurosyphilis.

Visits may be 452 persons			5,647
By 315 persons to clinic for treatment.			5,397
By 137 relatives for examinations			250
Total treatments given 315 cases			5,040
Acetarsone	15	Malaria	39
Arsphenamine	822	Neoarsphenamine	126
Bismuth	693	Tryparsamide	2,874
Diathermy	326	Typhoid Vaccine	117
Intraspinal	20	Ventriculographies	1
Encephalographies	7	Diagnostic Lumbar Punctures	1,136

Per cent of new families followed who were examined	77.1
Per cent of new relatives followed who were examined	74.5

Per cent of families examined showing evidence of syphilis	23.6
Per cent of relatives examined showing evidence of syphilis	15.2

The social service work in the neurosyphilitic cases continues as in previous years under the direction of Mrs. Maida H. Solomon and Miss Ruth Epstein.

The financing of the work of this Department comes from rather diverse sources. In addition to the support given from the hospital budget, funds have been made available by the Division of Mental Hygiene of the Department of Mental Diseases, by the Harvard Medical School, through the Department of Psychiatry and the DeLamar Mobile Research Fund; by the Commonwealth Fund of New York through their psychiatric fellowships; and by the Joseph M. Herman Medical Research Fund.

Appended hereto is a list of communications published, or prepared for publication during the year:

#### *Publications:*

SOLOMON, HARRY C. "The Treatment of Neurosyphilis." The Urologic and Cutaneous Review, April, 1932, Vol. 36, No. 4, pp. 223-228.

SOLOMON, H. C. and EPSTEIN, S. H. "Encephalography under Narcosis Produced by Non-Volatile Anesthetics. Jour. Amer. Med. Assoc., 98:1794, May 21, 1932.

EPSTEIN, S. H. and DAMESHEK, W. "Involvement of the Central Nervous System in a Case of Glandular Fever. New England Jour. Med. 205, p. 1238, Dec. 24, 1931.

EPSTEIN, S. H. and MARVIN, F. W. "Observations on Pentobarbital Sodium in Lumbar Punctures, Convulsive and Manic States. N. E. Jour. Med. 207:258, August 11, 1932.

MEDERITH, LOIS and SOLOMON, MAIDA H. "The Trend Study." News Letter, American. Assoc. of Psychiatric Social Workers, Vol. 1, No. 4, Jan. 1932.

EPSTEIN, S. H. "Chemotherapy of Neurosyphilis. Rhode Island Med. Jour. Vol. XV, No. 11, 175, November, 1932.

#### *Prepared for Publication:*

SOLOMON H. C. and KOPP, I. "Metabolic Rates at Different Temperature Levels in Hyperpyrexia Induced by Diathermy.

SOLOMON, H. C. and EPSTEIN, S. H. "Differential Effects of Arsphenamin and Tryparsamide," Amer. Jour. of Syphilis.

EPSTEIN, S. H. and LOTT, GEORGE. Lumbar Punctures in Psychotic Patients. Jour. Ner. and Ment. Diseases.



- EPSTEIN, S. H. and HANFLIG, S. S. "A New Apparatus for Encephalography." Amer. Jour. Roentgenology.
- SOLOMON, H. C., MERRITT, H. H. and MOORE, MERRILL. "The Iron Reaction in Parectic Neurosyphilis." Am. Jour. Syph. July, 1933.
- SOLOMON, H. C. and MOORE, MERRILL. "Hereditary Syphilis, by L. Babonneix" a book review to appear at a future date in the Arch. of Neur. and Psycho.
- MERRITT, H. H. and MOORE, MERRILL. "Cases of Tumor of the Brain Associated with marked Fleocytosis in the Cerebrospinal Fluid". To appear in the Jour. of Neur. and Psychopathology.
- SOLOMON, H. C. and EPSTEIN, S. H. "Treatment of Neurosyphilis. I. Malaria in the Treatment of General Paresis."

Respectfully submitted,

HARRY C. SOLOMON, M.D.

*Chief of Therapeutic Research.*

## REPORT OF THE CHIEF EXECUTIVE OFFICER

*To the Medical Director of the Boston Psychopathic Hospital:*

On December 1, 1931, the beginning of the fiscal year 1932, Dr. Arthur N. Ball, the former Chief Executive Officer of this hospital, was appointed Director of the Division for the Examination of Prisoners, and the present Chief Executive Officer was appointed to take his place. To facilitate the administration of the hospital Dr. Ball kindly carried on for a month the executive duties with the present Chief Executive Officer. For this courtesy we are greatly indebted to Dr. Ball.

Early in the year a survey of the hospital was made with the cooperation of the Engineering Staff of the Department of Mental Diseases. As a result of this survey certain changes in the physical make-up of the hospital building were considered with the view of facilitating the operation of certain departments.

The methods of preparing and serving food were studied and found to be not at all satisfactory. As a result, the idea of a cafeteria for employees was given considerable thought and tentative plans for the installation of cafeteria equipment were drawn up by the Engineering Department. Later on in the year, by carefully studying the budget, it was found it would be possible to transfer certain funds from various headings in order to establish a sum sufficient to pay for the installation of the equipment. Permission for this was given by the Department, the Budget Commissioner and the Comptroller.

The cafeteria at present is almost completed and it is hoped that it will start to function early in December. The installation of such equipment not only will give the hospital employees better prepared and a greater variety of food, but it can be shown definitely that money can be saved under Personal Services by creating vacancies in the positions which are now occupied by waitresses in the six dining rooms which are being abolished by the establishment of the cafeteria and the Staff Dining Room. There is no question but that waste of food stuffs will be greatly reduced.

This marks the first step in what the Chief Executive Officer considers a three year program. The next step in this program will be the re-allocation of the store room adjacent to the kitchen. By taking the dining room, formerly used by the porters and employees in the kitchen, as a store room, all food stuffs can be centralized in quarters adjoining the kitchen. This step releases the old storeroom which is one of the largest rooms in the building. It is proposed to change over this room and make it into a record room. Another room conveniently located on the basement floor is to be used for a file room. The present file rooms has been filled to overflowing and it is necessary to find suitable quarters to cover present needs and necessary expansion for a period of several years. It is hoped money will be available under Repairs and Renewals for the coming year to provide all new equipment for the preparation of records which will do away with the obsolete form of taking histories and notes in long hand. This should increase greatly the efficiency of the record room staff.

The third step proposed is to make the old record room into a medical office. This will provide adequate desk room for the entire medical staff with the ex-

ception of the chiefs of services who will have private offices, one on the second floor and one on the third. The present file room is to be made into four rooms which will be used in the double capacity of dictating booths and rooms for interviewing relatives. This move releases the four physicians' offices on the second and third floors. One of these offices is to be made into a medical examining room with proper apparatus and equipment. Another room is to be occupied by the Superintendent of Nurses. The Chief Medical Officer will be given one of these rooms, which in turn will release his office to Ward B, for which it was originally intended. In the remaining office on the second floor the dentist will be installed. This will give him larger, more convenient and more suitable space for his work. The Chief Executive Officer likewise expects to move his present office in order that it may be used as a part of Ward A, as was originally intended. Dr. Solomon will move his office to space adjacent to Ward A, which will centralize the Department of Therapeutic Research under his direction on the first floor. The office space formerly occupied by the Superintendent of Nurses and Dr. Solomon's department will be turned over to the Psychological Department for necessary expansion. A study of these various changes shows that they can be made with little or no extra appropriation of funds, and in all probability can be included under our usual budget requirements. Various departments in this way can be centralized and coordinated in such a way that they should function in a smoother and more efficient manner.

During the course of the year the Out-Patient Department has been re-decorated and a Psychological Nursery has been established. The woodwork of the pavilion on the fifth floor has been scrubbed and painted with aluminum and white paint. The Assembly Hall has been redecorated. The kitchen and hallways in the basement have been re-painted. New equipment in the nature of a water-cooled ultra violet light has been added to the Physiotherapy Department. Brine pipes have been recovered and other minor repairs carried out during the year.

Through the kind co-operation of the Street Commissioner of Boston, Vila Street has been accepted and re-surfaced, and its name changed to Vining Street. New manholes have also been added in this territory which will greatly help our sewage.

I wish to express at this time my sincere appreciation to the Medical Director, heads of departments and all employees of this hospital for their co-operation and loyalty. To Dr. Kline, the Commissioner of the Department of Mental Diseases, Mr. Merrill, the Business Agent, and all the members of his staff, I am particularly indebted for the aid and advice without which I would have been unable to accomplish any of the changes which I have undertaken during this, my first year, at the Boston Psychopathic Hospital.

Respectfully submitted,

SAMUEL SMITH COTTRELL, M.D.

*Chief Executive Officer.*

## REPORT OF SOCIAL SERVICE DEPARTMENT

*To the Medical Director of the Boston Psychopathic Hospital:*

As during the preceding year there have been few changes in staff. In March 1932, Mrs. Ruth Kozol resigned, her place being filled immediately by Miss Doris Stolzberg, a graduate of Radcliffe College and Simmons School of Social Work. In August 1932, Miss Clara F. Swain who had been with the department for two years, went abroad to study. After a delay of a month Miss Helen Spurrier, a graduate of Smith School of Social Work, was engaged to fill her place. Two Smith School of Social Work students, namely, Miss Louise Silbert and Miss Alice Fellows who were here from September, 1931 to June, 1932 and Miss Bertha London, who was a volunteer worker for several weeks, completed the staff and enabled it to handle a larger number of active cases than last year.

While the total number of new cases for the year, namely, eight hundred and seventy-four is less than that of last year which was nine hundred and thirty-eight the number of cases for intensive care has increased. For instance; four hundred and seven patients as against three hundred and sixty were visited and supervised in the community. Some of these cases had been discharged from the hospital



wards as non-psychotic or not sufficiently ill to need further care and others had been referred to the Out-Patient Department. The number of visits pertaining to the supervision of these cases, exclusive of the interviews made in the process of the investigation of court and House cases was 1,290, an increase of almost 500. The Out-Patient statistics seem to indicate much the same type of situation. While not as many people have come to the clinic as in other years, each has reported a greater number of times.

An analysis of the social problems which have appeared in the total number of cases handled by the Social Service Department indicates that there has been an increase of eighty in problems of mental disease, of one hundred and fourteen in personality problems, of sixteen in legal problems, of thirty-six in sex problems, of ninety-five in financial difficulties and of twenty-one in employment problems. A casual survey does not give any clue as to why there has been an increase of mental problems, but it does show definitely that the "depression" is causing difficulty for the patients.

In the actual distribution of the work routine, the same policy has been carried on this year as last, namely, certain workers have confined themselves to certain specific tasks. There has been an attempt however, to supervise a larger group of ward patients after their discharge. Many of these cases if not supervised by the Social Service Department of this hospital would have gone back to the same stresses and strains in their environment as those from which they had come. In order to make the period of hospitalization of any benefit it seems wise to attempt to help these individuals in their community adjustments.

Social case work has been defined as follows: "Social case work is a conscious attempt to improve the health, stability, comfort, efficiency and satisfaction of an individual by changes in him, his environment or both."

While it is rather difficult to show that certain treatment deals only with the attitude of the individual or only with the environment, it is apparent in some instances that more emphasis has been placed on effecting a change of environment than effecting a change in patient, or vice versa. The following cases are given to illustrate changes in environment, a field which is particularly that of the case workers as the physician is not able to leave the hospital environs in order to bring about an easement of the home or work situation. The improvement in the surroundings has seemed to cause improvement in patient's condition and delayed further hospitalization.

A.M., a single person of 35, had been having excessive sexual ruminations of the wish fulfillment type, centering around a male associate at her place of employment for two years. She finally gave up her job because of her inability to concentrate on her work. An intolerably drab home life with a high-tempered father of whom patient was afraid, no friends because patient was too tired at night after she had climbed the long hill from the car to her home to entertain socially or go out, contributed towards the development of her psychosis. When she left the hospital she had ceased to be hallucinated and had gained somewhat physically. Recommendation was made that she must have more recreational life, should have employment which was not too fatiguing, should get away from home if possible so that she could make friends and be away from the domination of her father. Patient was under social service supervision for nine months. Employment in a co-operative workshop where the industrial conditions were not too difficult was found for her. Although the pay was small she was glad to accept it as she was the only wage earner in the family, both her father and brother being out of work. While the employment did not bring her many new friends it did give her something to talk about at night with her mother. A vacation of two weeks was arranged during the summer at a camp run by a local social organization. Patient improved greatly here, making new friends and completely relaxing. She herself said after the first week, "There seems to be nothing wrong with my mind. It was no effort for me to keep happy and busy." After many unsuccessful attempts, lodgers were found, providing income and permitting patient to live away from home.

G.M., a single woman of 29, admitted to the hospital following suicidal threat. History indicated that her father was dead. Her mother had supported her for

years. She herself had graduated from high school, then stayed at home for about ten years and then had entered a theological college. Here she had conflict over her race, she being a negress and was rundown physically because of endocervicitis. During her hospital residence there was much nervous tension but much dramatization of her difficulties. She was found committable but left against advice as her mother did not wish her to go to another hospital. She was readmitted in two months after she had again threatened suicide. She enumerated many complaints and on this occasion was called a neurasthenic of the mixed type. Hospital commitment was again advised but the mother again refused to follow out this suggestion.

Patient has been under social service supervision for six months, at the same time having intensive psychotherapy by the doctor. Social service has attempted to improve the relationship with her mother. Patient has always been very unsympathetic toward her mother, taking great pride in being cruel and domineering. Through acting as an audience for patient's story of difficulties with her family the latter has been released from much unpleasantness. The sympathy and the attention which she has received plus the contacts with physician have satisfied the patient's desire to be the center of the stage and have prevented further hospital residence.

R.T., another case which illustrates "manipulation of the environment" came through the Out-Patient Department. He is a boy of 8, referred by his school principal because of overactivity, emotional tension and general naughtiness, thought to be due to wrong handling by his unwise mother who repeatedly told him that he would be insane like his father. Investigation revealed the following: Patient and his parents had been living in a very dark, damp, dirty home of two rooms, a kitchen and a bedroom. There was no yard where the patient could play. There were no decent children in the neighborhood with whom to play. There was much traffic which prevented patient from going to school alone. The father was a cardiac case who usually lose employment every year because of arthritis which necessitated hospitalization. City aid had to be given during this time. He had a high average intelligence, was music loving and fond of reading. The mother was approaching menopause, was of low grade intelligence, had no interest in appearance of her home. She had cut herself off from her family because they had disapproved of her marrying Protestant and a low paid stammerer. She liked to make a sensation of patient's misbehavior and her marital dissatisfaction. Patient had normal endowment, was popular with his mates, capable of handling his own affairs but was troubled with enuresis.

Case was under social service supervision for over a year during which time certain environmental changes were effected. At the instigation of social service worker family moved into a better neighborhood with less traffic where patient could go to school alone and be away from the over-solicitous attitude of his mother and where he had playmates. A better house provided two bedrooms and their own bathroom and a yard where the patient had rabbits. A radio, a bird which the father gave the mother for her birthday, comfortable chairs and a side board added much to the father's comforts. It is almost impossible to know to what to attribute improvement but with the above changes the father got through the winter without illness and city aid. He returned to church and the men's club. The mother resumed relationships with her own family, increased her outside interests so that she would not have as much time to spend criticizing the patient. Patient was sent to camp for the summer where he began to grow up and proved to be a "manly stalwart youngster."

The next two cases illustrate an attempt to change the attitude of the patient as well as improving the environment.

N.Y., age 19, was admitted July 9, 1931 and discharged July 15, 1931 following a period of depression and feeling of inadequacy. She was readmitted in September following more threats of suicide, remained for twelve days, discharged and re-admitted in November at which time she remained over a month.

History indicated that her father had deserted when she was a baby. Her mother had placed her with foster parents with whom she had lived until a year and a half before admission. The foster mother died and the foster father's relatives forced him to give up the patient, depriving her of her father substitute. She had



had no responsibility until this time. She was unsuccessful in finding pleasant work, having an unhappy period as an attendant in a mental hospital. When she came to the hospital she thought no one liked her and she was queer. After her first residence she was discharged to the care of her sister who proved to be a very bad influence. Sister was working in a Chinese restaurant and having illicit relations with the Chinamen. She introduced patient to them. Sister's husband, a ne'er-do-well forced patient to have sex relations with him which resulted in pregnancy.

While much effort and time was spent by the social service department in releasing patient from the sister's domination, in arranging for boarding care, in planning for prenatal and delivery care, a great effort was expended in getting patient to change her attitude toward herself and her surroundings. Many therapeutic talks were held with the patient at the home for unmarried mothers where she was sent. While the patient seemed very shallow emotionally it was possible to change her attitude somewhat and to make her a better mother for her child.

R.B., age 17, was admitted because she had become excitable at her employer's home, had seen someone in her room when there was no one there and had threatened to jump out of the window. Her father had been committed to jail for adultery. Mother had low intelligence quotient, questionable relationship with boarders and long history of drinking. Patient had been arrested for stealing, having been taught the art of stealing by an aunt and another girl. At times she was said to be moody, to want to be by herself, to not talk pleasantly with employers. On other occasions she told exaggerated stories of father's wealth and her own life in a private boarding school. A diagnosis of potential schizophrenia or pathological personality was made.

Patient was under supervision for a year, being seen as often as once a week by social worker. She was encouraged to talk over her problems and explain her views on life. She could have done the same with the physician but she did not wish to come to the Out-Patient Department. She finally confessed that she had strong homosexual trends and had had many overt experiences. Following these she had her periods of seclusiveness and moodiness.

At one time patient indicated a desire to marry a man whom she thought was several years older than herself. It was discovered that he had a long court record and was a minor. She was aided to face the fact and to give him up without having any resentment "toward an interfering social worker". At the end of the year, at which time she was employed, she stated that she had improved a great deal during the year. She realized her manners were more gracious, that she did not swear as much as formerly, that she was not as "hard-boiled". She had more insight into her behavior. It was felt that constant contact with the worker whom she liked had increased in her a desire to improve herself.

No report seems complete without some discussion of the court cases. This year it is possible to make some interesting comparisons with the cases referred by the courts in 1929 as a thesis was written about the latter by Miss Ethel Goodwin who was with the department from July, 1928 until September, 1930, leaving then to enter the New York School of Social Work. She made a study of the relationship of the hospital diagnosis, the hospital recommendations and court action.

In 1932, two hundred and thirty-six cases were referred by the courts as against one hundred and forty-six in 1929. One-fifth of the 1932 cases as against one-eighth of the 1929 cases were referred because of drunkenness; one-sixth as against one-eighth because of assault and battery. There seemed to be very little increase in cases sent for sexual offenses but many more were referred because of neglect of family or non-support of wife. One-fifth of the 1932 cases were under twenty years of age as against one-sixth in 1929 and one-eighth as against one-tenth were over fifty.

Two other theses were written last year, one on a follow-up of thirty-six delinquent children referred to the Out-Patient Department in 1928. Special attention was paid to whether or not the recommendations of the hospital had been carried out and if so, if these recommendations had any relationship to improvement in the patient. Seventeen cases were found to be making satisfactory adjustment when followed in 1931. The old problems for which they were referred to the clinic had

disappeared and there were no new problems. In seven of these cases the recommendation had been made that the child be sent to an industrial school. Only two of the families had been willing to carry out these suggestions but due to a change in the family set-up the patients seemed to get along well. In this first group the referring agencies helped the families when it was not possible to carry out hospital recommendations. Fourteen children were not improved. They went to either State hospitals, correctional institutions or industrial school. These cases had always presented more serious problems. They were delinquent for longer lengths of time. There was bad emotional tone in the family. In this last group three cases who had been recommended for foster home placement were allowed to stay in their own homes. There was no correlation between improvement and the number of contacts with psychiatrist and social worker. In the cases where there was the worst adjustments there had been the most visits to the hospital, but this does not prove necessarily that short contacts are more successful; merely indicates that complicated problems do not respond to intensive care.

Miss Louise Silbert prepared a dissertation on record writing, and outlined a sample form to meet the needs of the psychiatrist and social worker. She surveyed the literature written during period from 1915-1932 and discussed the evolution of the records at this hospital.

Students at Emerson College have acted as hostesses in the Out-Patient Department during the year. They have spent their time playing with the children and reading to them. In addition to helping to make less tedious the time of waiting they have made many useful observations regarding the behavior of the patients.

A small sum of money which was given by the Junior League in place of Christmas greens was used to buy a typewriter for a boy who could not read and some new clothes for an adolescent girl who had had little else than hand-me-downs.

At this time I should like to express appreciation of the excellent co-operation given this department by all members of the staff.

Respectfully submitted,

ESTHER C. COOK,

Head Social Worker.

### SOCIAL SERVICE STAFF

*Head Social Worker:* Esther C. Cook, July 1, 1928.

*Assistants in Social Service:* Rena Dewey, August 25, 1930. Ruth Kozol, March 21, 1931—resigned, March 12, 1932. Annie Porter, October 13, 1930; Helen Spurrier, October 5, 1932. Doris Stolzberg, March 14, 1932. Clara Swain, October 1, 1930—resigned, August 27, 1932.

*Syphilis Follow-up Worker:* Ruth Epstein, September 30, 1930.

### SOCIAL SERVICE STATISTICS

The full report of the Syphilis Service is given elsewhere but to the total number of cases handled by the Social Service Department may be added 104 new cases handled by the Syphilis Service social worker.

#### I. Numerical summary:

	Male		Female	
	Children	Adults	Children	Adults
New cases	113	264	58	211
Renewed from previous year	33	34	13	45
Continued from previous year	30	18	20	35
Total carried during year				874
Closed during year	156	275	86	283
Continued to following year	20	41	5	8
				874

#### II. Sources of new cases:

House	373
Out-patient	257
Research	16

#### Sources of continued cases:

House	36
Out-Patient	61

Research . . . . .	7
Sources of renewed cases:	
House . . . . .	44
Out-patient . . . . .	73
Research . . . . .	8
III. Analysis of work on all cases:	
Number of histories . . . . .	107
Number of investigations . . . . .	285
Number of patients on visit from hospital books . . . . .	65
On visit (exclusive of syphilis service) . . . . .	13
All others (including house cases which have been discharged into the community and out-patient cases) . . . . .	407
Number of visits pertaining to the supervision of patients in the community, either ex-house cases or out-patient cases (does not include visits made during course of investigation) . . . . .	1290
Number of visits to patients on wards . . . . .	344
Placements by Social Service:	
1. Unable to place . . . . .	17
2. Number placed . . . . .	33
Unclassified: Steering for agencies, application sent to school for feebleminded, getting interpreters, etc.	
IV. Outstanding social problems:	
Diseases:	
Mental . . . . .	488
Physical . . . . .	160
Personality problems, including temperament, vacillating interests, instability, etc. . . . .	420
Legal problems, including larceny, assault, forgery, etc. . . . .	146
Sex problems . . . . .	150
Environmental:	
Financial difficulties . . . . .	243
Employment . . . . .	118
Marital difficulties . . . . .	131
Unsuitable surroundings, broken home, friction in the home, inadequate physical surroundings, immoral parents . . . . .	256
V. Miscellaneous:	
Expense account . . . . .	\$733.78

## REPORT OF THE PRINCIPAL OF SCHOOL OF NURSING

### *To the Medical Director of the Boston Psychopathic Hospital:*

I herewith present the annual report of the nursing department for the year ending November 30, 1932.

*On nursing service* — Principal, School of Nursing, 1; Assistant Principal, School of Nursing, 1; nurse instructor, (full time), 1; female supervisor, (night), 1; male supervisor (day), 1; assistant supervisors, 2; head nurse, operating room, 1; head nurses, wards, 6; assistant head nurses, 2; post-graduate nurses, 2; students nurses, 14; hydrotherapists, 2; female attendants, 8; male attendants, 13.

*Head nurse resigned* — Mrs. Margaret Lundy; appointment, Miss Madaline Peddle.

During the year we received fifty-four student nurses and two graduate nurses for the three months course in psychiatric nursing.

We still retain the affiliation we established six years ago with the Faulkner, Cambridge, Newton and New England Baptist Hospitals; and four years ago with the New England Deaconess Hospital. The Lynn Hospital with whom we established affiliation last year is now sending us four students nurses instead of two every three months. We also accepted two students from the Westerly Hospital Westerly, Rhode Island, during the summer affiliation. This helped to cover the shortage due to vacations. We were unable to continue this affiliation due to the overcrowded condition in the nurse's quarters.

Miss Marion Hammond and Miss Lena LaBadia graduates from the Ellis



Hospital, Schenectady, New York, are taking a post-graduate course. These nurses are obliged to room out as we have no means of housing them.

The affiliative course taken by Miss Helen Beeler and Miss Avice Ansty, students from the Faulkner Hospital was interrupted due to illness; both nurses returned later for one month, completing their course.

We had more than the usual amount of illness throughout the nursing department: due partly to a case of diphtheria and the subsequent quarantine of the hospital wards for several weeks. Miss Anna Pease had nurse on Ward 3 and Miss Muriel Kew, assistant nurses on Ward 2 showed positive throat cultures and were confined to the South Department of the Boston City Hospital for three weeks.

The nursing problem of taking care of an increased number of excited physically ill patients during the year, while having less than our usual quota of nurses due to illness, was rather a difficult one, and I wish to thank the doctors for their help and cooperation, without which we could not possibly have carried on.

*Hydrotherapy* — tonic baths, number of patients, 227; foot baths, 557; salt glows, 958; electric light baths, 662; saline baths 141; sitz baths 196; hot and cold to the spine 138; tub shampoos 533; head shampoos 436; needle sprays 3,301; fan douches 3,301; jet douches 1,245; rain douches 396; Scotch douches 106; massage 52; continuous baths, number of patients 218; number of baths 667; number of hours 3,465. Wet sheet packs: number of patients 26; number of packs 47; number of hours 115. Out-Patient Department: — number of patients 21; foot baths 43; salt glows 61; electric light baths 214; needled sprays 328; fan douches 328; jet douches 273; scotch douches 38; massage 101. Instructions in wet sheet packs, continuous baths and tonic baths were given to 54 student nurses. Number of lessons 702; number of hours 702. Instructions in wet sheet packs and continuous baths were given to 10 male attendants. Number of lessons 37, number of hours 46.

Respectfully submitted,

MARY FITZGERALD, R. N.

*Principal, School of Nursing.*

## REPORT OF THE DEPARTMENT OF OCCUPATIONAL THERAPY

*To the Medical Director of the Boston Psychopathic Hospital:*

During the year the work of the Occupational Therapy Department has proceeded, in essential features, along previous lines. With the routine work, however, we have endeavored to introduce variety and create interest, so that there is something of benefit offered to every patient. The benefit is not always to apparent among short term patients, but with long term patients, it is naturally more so. That this is true is shown by the occasional return of discharged patients, to work in the department.

For eight months in the year we continue to have students from the Boston School of Occupational Therapy. With us they receive part of their training with mental patients and we are always glad to have their interest and enthusiasm. While they are with us it is possible to maintain more specialized work on Ward III, under the supervision of the assistant. From the therapeutic point of view this first contact with the patients is most valuable, and if they later come to the department tends to a more co-operative attitude.

The affiliated nurses also spend a certain part of their allotted time at the hospital in our department. They learn the principles and routine of the work and are most helpful if any emergency arises.

So far the recreational side of our program has been limited to holiday dances, for which we make appropriate decorations. This affords a pleasing diversion and makes for excellent group work.

In connection with the annual meeting of the Massachusetts Occupational Therapy Association, in November, samples of our work were exhibited, and the director had the pleasure of serving on the Exhibition Committee.

The personnel of the department is unchanged, Miss Maynard continuing as an able and loyal assistant.

The statistics of the Department are as follows:

Attendance — Women — average attendance, 15; total enrollment, 626.

Attendance — Men — average attendance, 20; total enrollment, 783.  
Articles made, 1,448. Forms printed, 20,540.

Respectfully submitted,

ALICE E. WAITE,

Head Occupational Therapist.

# PUBLICATIONS FROM THE CLINICAL SERVICE AND LABORATORIES

- BECK, S. J. — The Rorschach Test as Applied to a Feeble-minded Group. Columbia University, *Archives of Psychology*, No. 136, 1932.
- BOWMAN, K.M. AND BENDER, L. — The Treatment of Involution Melancholia with Ovarian Hormone. *American Journal of Psychiatry*, Vol. XI, No. 5, March 1932.
- BOWMAN, K. M. — Progress in Psychiatry for 1931. *New England Journal of Medicine*, Vol. 207, No. 16, pp. 701-707, October 20, 1932.
- CAMPBELL, C. MACFIE — The Schizophrenic Territory and the Task of Mental Hygiene. Gehrman Lectures on Hygiene, University of Illinois College of Medicine, March, 1932.
- EPSTEIN, S. H. AND DAMESHEK, W. — Involvement of the Central Nervous System in a Case of Glandular Fever. *New England Journal of Medicine*, Vol. 205, No. 26, p. 1238, Dec. 24, 1931.
- EPSTEIN, S. H. AND MARVIN, F. W. — Observations on Pentobarbital Sodium in Lumbar Punctures, Convulsive and Manic States. *New England Journal of Medicine*, Vol. 207, No. 6, p. 258, August 11, 1932.
- EPSTEIN, S. H. — Chemotherapy of Neurosyphilis. *Rhode Island Medical Journal*, Vol. XV, No. 11, p. 175, November 1932.
- GRABFIELD, G. P. AND PRATT, J. H. — The Action of Cinchophen. *Journal of Pharmacology and Experimental Therapy*, Vol. XLII, No. 4, August 1931.
- GRABFIELD, G. P. AND CAMPBELL, A. G. — A Note on the Relation Between Blood Cholesterol and Basal Metabolic Rate. *New England Journal of Medicine*, Vol. 205, No. 24, December 10, 1931.
- MEREDITH, L. AND SOLOMON, M. H. — The Trend Study. News Letter, American Association of Psychiatric Social Workers, Vol. 1, No. 4, January 1932.
- SOLOMON, H. C. AND EPSTEIN, S. H. — Encephalography under Narcosis Produced by Non-Volatile Anesthetics. *Journal of American Medical Association*, Vol. 98, p. 1794, May 12, 1932.
- WELLS, F. L. — Army Alpha-Revised. *The Personnel Journal*, Vol. X, No. 6, pp. 411-417, April, 1932.
- WELLS, F. L. — Evaluation of Personality and Character Tests. *American Journal of Orthopsychiatry*, Vol. II, No. 4, October 1932.

## VALUATION

November 30, 1932

### REAL ESTATE

Land, 2 acres . . . . .	\$59,300.00
Buildings . . . . .	527,042.64
	<hr/>
	\$586,342.64

### PERSONAL PROPERTY

Travel, transportation and office expenses . . . . .	\$3,816.18
Food . . . . .	1,786.17
Clothing and materials . . . . .	1,659.57
Furnishings and household supplies . . . . .	25,488.91
Medical and general care . . . . .	21,144.61
Heat and other plant operation . . . . .	911.88
Farm . . . . .	—
Garage and grounds . . . . .	133.20
Repairs . . . . .	1,261.23
	<hr/>
	\$56,201.75

### SUMMARY

Real estate . . . . .	\$586,342.64
Personal property . . . . .	56,201.75
	<hr/>
	\$642,544.39

## FINANCIAL REPORT

To the Department of Mental Diseases:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1932.

## CASH ACCOUNT

(The receipts shown below are to be on a strictly cash basis of what has been actually turned in to the Treasury of the Commonwealth.)

## Receipts

## Income

Board of Patients	\$7,522.35	
Reimbursements	376.28	
		\$7,898.63
Personal services:		
Reimbursement from Board of Retirement		\$88.83
Sales:		
Food	35.82	
Furnishings and household supplies	7.00	
Repairs, ordinary	6.46	
Arts and crafts sales	58.10	
Sundries	11.95	
Total sales		119.33
Miscellaneous:		
Interest on bank balances	\$120.31	
Rent	1,200.00	
Sundries	422.25	
		1,742.56
Total income		\$9,849.35

## MAINTENANCE

Balance from previous year, brought forward	\$5,573.74
Appropriations, current year	235,450.00
Total	\$241,023.74
Expenses (as analysed below)	231,176.62
Balance reverting to Treasury of Commonwealth	\$9,847.12

## Analysis of Expenses

Personal services	\$161,662.73
Religious instruction	1,160.00
Travel, transportation and office expenses	5,126.26
Food	26,977.66
Clothing and materials	536.36
Furnishings and household supplies	4,881.43
Medical and general care	13,716.05
Heat and other plant operation	12,101.94
Garage and grounds	248.70
Repairs ordinary	3,315.81
Repairs and renewals	1,449.68
Total expenses for maintenance	\$231,176.62

## PER CAPITA

During the year the average number of inmates has been 79.81.  
 Total cost of maintenance, \$231,176.62.  
 Equal to a weekly per capita cost of \$55.7036.  
 Receipt from sales, \$119.33.  
 Equal to a weekly per capita of \$.0287.  
 All other institution receipts, \$9,730.02.  
 Equal to a weekly per capita of \$2.3445.  
 Net weekly per capita \$53.3304

Respectfully submitted,  
 ELIZABETH LIBBER SHORE,

Treasurer.

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION PRESCRIBED  
 BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. General Information

Data correct at end of hospital year November 30, 1932

1. Date of opening as a hospital for mental diseases, June, 1912.

2. Type of hospital: State.

3. Hospital plant:

Value of hospital property:

Real estate, including buildings

Personal property

\$586,342.64

56,201.75

Total

\$642,544.39

Total acreage of hospital property owned, 2 acres.

Total acreage under cultivation during previous year, 2 acres.



## 4. Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	2	—	2	—	—	—
Assistant physicians . . . . .	10	—	10	1	—	1
Medical internes . . . . .	3	1	4	—	—	—
Clinical assistants . . . . .	2	1	3	—	—	—
Total physicians . . . . .	17	2	19	1	—	1
Resident dentists . . . . .	1	—	1	—	—	—
Graduate nurses . . . . .	2	12	14	—	2	2
Other nurses and attendants . . . . .	16	17	33	—	—	—
Occupational therapists . . . . .	—	2	2	—	—	—
Social workers . . . . .	—	6	6	—	—	—
All other officers and employees . . . . .	24	45	69	2	—	2
Total officers and employees . . . . .	60	84	144	3	2	5

NOTE: — The following items, 5-10 inclusive, are for the year ended, September 30, 1932.

## 5. Census of patient population at end of year:

	Actually in Hospital			Absent from Hospital but Still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane . . . . .	32	27	59	20	26	46
Epileptics . . . . .	—	1	1	—	—	—
Mental defectives . . . . .	2	1	3	—	—	—
Alcoholics . . . . .	1	1	2	—	—	—
All other cases . . . . .	6	4	10	—	—	—
Total . . . . .	41	34	75	20	26	46
OTHER RACES:						
Insane . . . . .	2	1	4	2	—	2
Total . . . . .	3	1	4	2	—	2
Grand Total . . . . .	44	35	79	22	26	48

	M.	F.	T.
6. Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .	25	16	41
7. Other patients employed in general work of hospital on date of report . . . . .	2	—	2
8. Average daily number of all patients actually in hospital during year . . . . .	41.78	38.42	80.2
9. Voluntary patients admitted during year . . . . .	34	28	62
10. Persons given advice or treatment in out-patient clinics during year . . . . .	536	646	1,182

## TABLE 2. Financial Statement

See Treasurer's report for data requested under this table.

NOTE: — The following tables 3-19, inclusive, are for the statistical year ended September 30, 1932.

TABLE 3. *Movement of Patient Population*

	Regular Court Commitment (Insane)			Voluntary			Temporary Care			Observation			Total on Books		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1931 . . . . .	55	41	96	5	8	13	18	7	25	6	5	11	84	61	145
Admissions during year:															
First admissions . . . . .	64	52	116	25	14	39	613	578	1,191	160	44	204	862	688	1,550
Readmissions . . . . .	9	12	21	9	14	23	166	131	297	30	25	55	214	182	396
Transfers from other hospitals for mental diseases . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	1	1	2
Total received during year . . . . .	74	65	139	34	28	62	779	709	1,488	190	69	259	1,077	871	1,948
Total on books during year . . . . .	129	106	235	39	36	75	797	716	1,513	196	74	270	1,161	932	2,093
Discharged from books during year:															
As recovered . . . . .	-	-	-	1	-	1	48	4	52	4	1	5	53	5	58
As improved . . . . .	32	18	50	14	13	27	189	138	327	13	5	18	248	174	422
As unimproved . . . . .	4	1	5	3	3	6	392	448	840	56	21	77	455	473	928
As without psychosis . . . . .	1	-	1	11	16	26	147	110	257	110	43	153	269	168	437
Transferred to other hospitals for mental diseases . . . . .	51	40	91	-	-	-	-	-	-	-	-	-	51	40	91
Died during year . . . . .	8	8	16	-	-	-	10	3	13	1	-	1	19	11	30
Total discharged, transferred and died during year . . . . .	96	67	163	29	31	60	786	703	1,489	184	70	254	1,095	871	1,966
Insane patients remaining on books of hospital at end of hospital year:															
In hospital . . . . .	11	13	24	10	5	15	11	13	24	12	4	16	44	35	79
On parole or otherwise absent . . . . .	22	26	48	-	-	-	-	-	-	-	-	-	22	26	48
Total . . . . .	33	39	72	10	5	15	11	13	24	12	4	16	66	61	127

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States.	46	31	77	18	16	12	15	17	14
Austria	1	1	1	1	1	1	1	1	1
Canada <sup>1</sup>	—	4	4	4	6	4	5	5	3
England	2	2	4	5	6	4	—	1	—
Germany	—	—	—	1	1	1	—	—	—
Greece	1	—	1	1	1	1	—	—	—
Ireland	—	7	7	10	10	8	17	13	13
Italy	3	1	4	5	5	5	2	2	2
Norway	1	—	1	2	1	1	—	—	—
Poland	1	—	1	1	1	1	—	—	—
Russia	2	1	3	6	6	6	5	6	5
Scotland	2	2	4	4	2	2	1	2	1
Sweden	—	1	1	—	1	—	3	2	2
Turkey in Europe	1	—	1	1	1	1	—	—	—
West Indies <sup>2</sup>	2	—	2	1	2	1	—	—	—
Other countries	2	3	5	5	2	2	3	3	3
Unascertained	—	—	—	1	2	—	—	—	—
Total	64	52	116	64	64	50	52	52	44

<sup>1</sup>Includes Newfoundland<sup>2</sup>Except Cuba and Porto Rico



TABLE 4-A Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born.

Age Groups	Aggregate	NATIVE BORN				FOREIGN BORN			
		Total		PARENTAGE		Total	TIME IN UNITED STATES BEFORE ADMISSIONS		
		M. F.	T.	M. F.	T.		5-9 years	10-14 years	15 years and over
Under 15 years	M. F. T.	3 3 3	2 2 2	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
15-19 years	3 6 9	3 5 8	1 1 1	2 3 3	2 3 3	1 1 1	1 1 1	1 1 1	1 1 1
20-24 years	5 6 11	4 5 9	1 1 1	2 3 3	2 3 3	1 1 1	1 1 1	1 1 1	1 1 1
25-29 years	4 7 11	4 7 11	3 4 7	3 3 3	3 3 3	2 1 3	1 1 1	1 1 1	1 1 1
30-34 years	9 2 11	7 1 8	3 4 7	3 3 3	3 3 3	1 1 1	1 1 1	1 1 1	1 1 1
35-39 years	8 8 16	3 4 7	3 4 7	3 3 3	3 3 3	1 1 1	1 1 1	1 1 1	1 1 1
40-44 years	5 5 10	4 4 8	3 4 7	3 3 3	3 3 3	1 1 1	1 1 1	1 1 1	1 1 1
45-49 years	8 4 12	6 4 10	3 4 7	3 3 3	3 3 3	1 1 1	1 1 1	1 1 1	1 1 1
50-54 years	11 5 16	7 4 11	3 4 7	3 3 3	3 3 3	1 1 1	1 1 1	1 1 1	1 1 1
55-59 years	9 4 13	7 1 8	3 4 7	3 3 3	3 3 3	1 1 1	1 1 1	1 1 1	1 1 1
60-64 years	2 1 3	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
65-69 years	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
Total	64 52 116	46 31 77	12 14 26	21 12 33	13 5 18	18 21 39	1 1 2	1 1 1	17 19 36

TABLE 5 *Citizenship of First Admissions*

	M.	F.	T.
Citizens by birth	46	31	77
Citizens by naturalization	12	12	24
Aliens	5	7	12
Citizenship unascertained	1	2	3
Total	64	52	116

TABLE 6. *Psychoses of First Admissions*

PSYCHOSES	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses				1	—	1
2. Senile psychoses				—	—	—
3. Psychoses with cerebral arteriosclerosis				1	3	4
4. General paralysis				35	4	39
5. Psychoses with cerebral syphilis				—	—	—
6. Psychoses with Huntington's chorea				—	—	—
7. Psychoses with brain tumor				2	—	2
8. Psychoses with other brain or nervous diseases, total				3	5	8
Meningitis, tubercular or other forms	1	—	1			
Other diseases	2	5	7			
9. Alcoholic psychoses, total				1	1	2
Delirium tremens	—	1	1			
Acute hallucinosis	1	—	1			
10. Psychoses due to drugs and other exogenous toxins, total				—	2	2
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined	—	2	2			
11. Psychoses with pellagra				—	—	—
12. Psychoses with other somatic diseases, total				3	9	12
Delirium of unknown origin	1	1	2			
Cardio-renal diseases	2	3	5			
Other diseases or conditions	—	5	5			
13. Manic-depressive psychoses, total				7	8	15
Manic type	1	3	4			
Depressive type	6	5	11			
14. Involution melancholia				—	1	1
15. Dementia praecox (schizophrenia)				8	12	20
16. Paranoia and paranoid conditions				—	1	1
17. Epileptic psychoses				—	1	1
18. Psychoneuroses and neuroses, total				—	1	1
Hysterical type	—	1	1			
19. Psychoses with psychopathic personality				—	—	—
20. Psychoses with mental deficiency				—	—	—
21. Undiagnosed psychoses				3	4	7
22. Without psychosis, total				—	—	—
Total	64	52	116			

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			Traumatic			With cerebral arterio-sclerosis			General paralysis			With brain tumor		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	3	—	3	—	—	—	—	—	—	1	—	1	—	—	—
Armenian	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
English	15	16	31	—	—	—	1	1	2	8	1	9	1	—	1
German	2	—	2	—	—	—	—	—	—	1	—	1	—	—	—
Greek	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
Hebrew	6	6	12	—	—	—	—	—	—	2	—	2	—	—	—
Irish	14	12	26	—	—	—	—	1	1	8	1	9	—	—	—
Italian <sup>1</sup>	5	2	7	—	—	—	—	—	—	4	—	4	—	—	—
Lithuanian	1	1	2	—	—	—	—	—	—	—	—	—	1	—	1
Scandinavian <sup>2</sup>	2	3	5	—	—	—	—	—	—	2	1	3	—	—	—
Scotch	2	1	3	1	—	1	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	1	1	2	—	—	—	—	—	—	1	—	1	—	—	—
Syrian	1	1	2	—	—	—	—	1	1	1	—	1	—	—	—
Turkish	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
Mixed	8	8	16	—	—	—	—	—	—	5	1	6	—	—	—
Race unascertained	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Total	64	52	116	1	—	1	1	3	4	35	4	39	2	—	2

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes, and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrain, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	With other brain or nervous diseases			Alcoholic			Due to drugs and other exogenous toxins			With other somatic diseases			Manic-depressive		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1
Armenian	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
English	2	1	3	—	—	—	—	1	1	—	3	3	2	5	7
German	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
Irish	—	1	1	—	—	—	—	—	—	1	4	5	1	—	1
Italian <sup>1</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	1	1	—	—	—	1	—	1
Slavonic <sup>3</sup>	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	1	2	3	1	—	1	—	—	—	—	1	1	—	1	1
Race unascertained	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1
Total	3	5	8	1	1	2	—	2	2	3	9	12	7	8	15

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Involution melancholia			Dementia praecox			Paranoia and paranoid conditions			Epileptic psychoses			Psycho-neuroses and neuroses			Undiagnosed psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	1	4	5	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	1	1	3	1	4	—	—	—	—	1	1	—	—	—	1	1	2
Irish	—	—	—	2	2	4	—	1	1	—	—	—	—	1	1	2	1	3
Italian <sup>1</sup>	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Lithuanian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Scandinavian <sup>2</sup>	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syrian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	—	—	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1	1	8	12	20	—	1	1	—	1	1	—	1	1	3	4	7

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes, and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.



TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	-	1	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	1	3	4	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	35	4	39	-	2	2	1	-	1	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	2	-	2	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	3	5	8	-	-	-	1	1	2	-	-	-
9. Alcoholic . . . . .	1	1	2	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	2	2	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	9	9	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	3	9	12	-	-	-	-	-	-	-	-	-
13. Manic-depressive . . . . .	7	8	15	-	-	-	-	1	1	1	4	5
14. Involution melancholia . . . . .	-	1	1	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	8	12	20	-	-	-	1	2	3	4	2	6
16. Paranoia and paranoid conditions . . . . .	-	1	1	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	1	1	-	1	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	1	1	-	-	-	-	1	1	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	3	4	7	-	-	-	-	1	1	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	64	52	116	-	3	3	3	6	9	5	6	11

TABLE 8 *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	25-29 years			30-34 years			35-39 years			40-44 years			45-49 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
4. General paralysis . . . . .	2	-	2	6	-	6	5	2	7	3	-	3	4	-	4
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	1	1	-	-	-	1	-	1	-	-	-	1	2	3
9. Alcoholic . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	1	-	1
10. Due to drugs and other exo- toxins . . . . .	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	2	2	1	1	2	-	1	1	-	-	-	-	-	-
13. Manic-depressive . . . . .	-	-	-	-	-	-	-	1	1	-	-	-	2	1	3
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
15. Dementia praecox . . . . .	1	4	5	2	1	3	-	2	2	-	-	-	-	1	1
16. Paranoia and paranoid con- ditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic person- ality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	1	-	1	-	-	-	-	1	1	2	2	4	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	4	7	11	9	2	11	8	8	16	5	5	10	8	4	12

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	50-54 years			55-59 years			60-64 years			65-69 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	1	1	-	1	1	-	-	-	-	1	1
4. General paralysis . . . . .	8	-	8	4	-	4	2	-	2	-	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	2	-	2	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	1	1	-	-	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
1. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
2. With other somatic diseases . . . . .	-	2	2	2	3	5	-	-	-	-	-	-
3. Manic-depressive . . . . .	1	1	2	3	-	3	-	-	-	-	-	-
4. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
5. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
6. Paranoia and paranoid conditions . . . . .	-	1	1	-	-	-	-	-	-	-	-	-
7. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
8. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
9. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
10. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
11. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
12. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	11	5	16	9	4	13	2	1	3	-	1	1

TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total			Illiterate		Reads and writes <sup>1</sup>		Common school		High school		College		Unascertained	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.		F.
1. Traumatic . . . . .	1	-	1	-	-	-	-	1	-	1	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	1	3	4	-	-	-	2	1	2	-	-	-	-	-	-
4. General paralysis . . . . .	35	4	39	1	-	1	3	1	4	21	2	23	9	1	2
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	2	5	8	-	-	-	1	1	1	3	3	6	1	1	1
9. Alcoholic . . . . .	1	1	2	-	-	-	-	-	-	1	1	1	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	3	9	12	-	-	-	-	-	-	2	6	8	2	2	1
13. Manic-depressive . . . . .	7	8	15	-	-	-	-	5	2	7	2	5	7	1	1
14. Involution melancholia . . . . .	-	1	1	-	-	-	-	-	1	1	-	-	-	-	-
15. Dementia praecox . . . . .	8	12	20	-	-	-	-	2	4	6	5	6	11	1	2
16. Paranoia and paranoid condition . . . . .	-	1	1	-	-	-	-	-	1	1	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	3	4	7	-	-	1	1	3	3	6	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	64	52	116	1	1	2	3	4	7	40	26	66	17	16	33
										2	5	7			
															</

<sup>1</sup>Includes those who did not complete fourth grade in school.

TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Urban		
	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	1	—	1
2. Senile . . . . .	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	3	4	1	3	4
4. General paralysis . . . . .	35	4	39	35	4	39
5. With cerebral syphilis . . . . .	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—
7. With brain tumor . . . . .	2	—	2	2	—	2
8. With other brain or nervous diseases . . . . .	3	5	8	3	5	8
9. Alcoholic . . . . .	1	1	2	1	1	2
0. Due to drugs and other exogenous toxins . . . . .	—	2	2	—	2	2
1. With pellagra . . . . .	—	—	—	—	—	—
2. With other somatic diseases . . . . .	3	9	12	3	9	12
3. Manic-depressive . . . . .	7	8	15	7	8	15
4. Involution melancholia . . . . .	—	1	1	—	1	1
5. Dementia praecox . . . . .	8	12	20	8	12	20
6. Paranoia and paranoid conditions . . . . .	—	1	1	—	1	1
7. Epileptic psychoses . . . . .	—	1	1	—	1	1
8. Psychoneuroses and neuroses . . . . .	—	1	1	—	1	1
9. With psychopathic personality . . . . .	—	—	—	—	—	—
0. With mental deficiency . . . . .	—	—	—	—	—	—
1. Undiagnosed psychoses . . . . .	3	4	7	3	4	7
2. Without psychosis . . . . .	—	—	—	—	—	—
Total . . . . .	64	52	116	64	52	116

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Dependent			Marginal			Un'certained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	3	4	—	—	—	1	3	4	—	—	—
4. General paralysis . . . . .	35	4	39	2	—	2	33	4	37	—	—	—
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	2	—	2	—	—	—	2	—	2	—	—	—
8. With other brain or nervous diseases . . . . .	3	5	8	—	1	1	3	4	7	—	—	—
9. Alcoholic . . . . .	1	1	2	—	—	—	1	1	2	—	—	—
0. Due to drugs and other exogenous toxins . . . . .	—	2	2	—	—	—	—	2	2	—	—	—
1. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
2. With other somatic diseases . . . . .	3	9	12	—	—	—	2	9	11	1	—	1
3. Manic-depressive . . . . .	7	8	15	—	—	—	7	8	15	—	—	—
4. Involution melancholia . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
5. Dementia praecox . . . . .	8	12	20	1	—	1	7	12	19	—	—	—
6. Paranoia and paranoid conditions . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
7. Epileptic psychoses . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
8. Psychoneuroses and neuroses . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
9. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
0. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
1. Undiagnosed psychoses . . . . .	3	4	7	—	—	—	3	4	7	—	—	—
2. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	64	52	116	3	1	4	60	51	111	1	—	1



TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	3	4	1	2	3	—	1	1	—	—	—	—	—	—
4. General paralysis . . . . .	35	4	39	17	3	20	14	1	15	4	—	4	—	—	—
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	3	5	8	2	3	5	1	2	3	—	—	—	—	—	—
9. Alcoholic . . . . .	1	1	2	—	—	—	—	—	—	1	1	2	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	3	9	12	—	9	9	1	—	1	1	—	1	1	—	1
13. Manic-depressive . . . . .	7	8	15	—	8	8	6	—	6	1	—	1	—	—	—
14. Involution melancholia . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
15. Dementia praecox . . . . .	8	12	20	5	11	16	2	1	3	1	—	1	—	—	—
16. Paranoia and paranoid conditions . . . . .	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	3	4	7	1	3	4	1	1	2	1	—	1	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	64	52	116	26	44	70	27	7	35	9	1	10	1	—	1

TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Single			Married			Separated			Divorced		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	3	4	—	—	—	—	3	3	1	—	1	—	—	—
4. General paralysis . . . . .	35	4	39	6	3	9	24	1	25	3	—	3	2	—	2
5. With cerebral syphilis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	3	5	8	3	2	5	—	3	3	—	—	—	—	—	—
9. Alcoholic . . . . .	1	1	2	1	—	1	—	—	—	—	—	—	—	1	1
10. Due to drugs and other exogenous toxins . . . . .	—	2	2	—	—	—	—	1	1	—	—	—	—	1	1
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	3	9	12	1	2	3	1	6	7	1	—	1	—	1	1
13. Manic-depressive . . . . .	7	8	15	4	6	10	3	1	4	—	1	1	—	—	—
14. Involution melancholia . . . . .	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
15. Dementia praecox . . . . .	8	12	20	8	11	19	—	1	1	—	—	—	—	1	1
16. Paranoia and paranoid conditions . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	3	4	7	3	1	4	—	2	2	—	1	1	—	—	—
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	64	52	116	27	27	54	30	19	49	5	2	7	2	4	6

TABLE 14. *Psychoses of Readmissions*

PSYCHOSES	Males	Females	Total
General paralysis	4	—	4
Psychoses due to drugs and other exogenous toxins	—	1	1
Manic-depressive psychoses	3	6	9
Involution melancholia	—	2	2
Dementia praecox	1	1	2
Psychoses with psychopathic personality	—	1	1
Psychoses with mental deficiency	—	1	1
Undiagnosed psychoses	1	—	1
Total	9	12	21

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	Total			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Traumatic	—	—	—	—	—	—	—	—	—
Senile	—	—	—	—	—	—	—	—	—
With cerebral arteriosclerosis	—	—	—	—	—	—	—	—	—
General paralysis	20	3	23	20	3	23	—	—	—
With cerebral syphilis	—	1	1	—	1	1	—	—	—
With Huntington's chorea	—	—	—	—	—	—	—	—	—
With brain tumor	1	—	1	—	—	—	1	—	1
With other brain or nervous diseases	2	1	3	2	1	3	—	—	—
Alcoholic	2	—	2	2	—	2	—	—	—
Due to drugs and other exogenous toxins	—	2	2	—	2	2	—	—	—
With pellagra	—	—	—	—	—	—	—	—	—
With other somatic diseases	1	3	4	1	3	4	—	—	—
Manic-depressive	3	3	6	3	3	6	—	—	—
Involution melancholia	—	—	—	—	—	—	—	—	—
Dementia praecox	3	1	4	1	1	2	2	—	2
Paranoia and paranoid condition	—	1	1	—	1	1	—	—	—
Epileptic psychoses	—	—	—	—	—	—	—	—	—
Psychoneuroses and neuroses	—	1	1	—	—	—	—	1	1
With psychopathic personality	—	—	—	—	—	—	—	—	—
With mental deficiency	—	—	—	—	—	—	—	—	—
Undiagnosed psychoses	4	3	7	3	3	6	1	—	1
Without psychosis	1	—	1	—	—	—	—	—	—
Total	37	19	56	32	18	50	4	1	5

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Psychoses*

CAUSES OF DEATH	Total			General paralysis			Manic-depressive			*All other psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious Diseases</i>												
Tuberculosis of the respiratory system	—	1	1	—	—	—	—	—	—	—	1	1
Philis (non-nervous forms)	1	—	1	1	—	1	—	—	—	—	—	—
Arulent infection, septicaemia	1	—	1	—	—	—	—	—	—	1	—	1
<i>Diseases of the Nervous System</i>												
Encephalitis (non-epidemic)	1	—	1	—	—	—	—	—	—	1	—	1
Other diseases of spinal cord	1	—	1	—	—	—	1	—	1	—	—	—
Cerebral hemorrhage, apoplexy	—	1	1	—	—	—	—	—	—	—	1	1
General paralysis of the insane	2	1	3	2	—	2	—	—	—	—	1	1
Other forms of mental diseases	—	1	1	—	—	—	—	—	—	—	1	1
<i>Diseases of the Circulatory System</i>												
Endocarditis and myocarditis	1	1	2	—	—	—	—	—	—	1	1	2
<i>Diseases of the Respiratory System</i>												
Bronchopneumonia	1	2	3	1	—	1	—	—	—	—	2	2
Lobar pneumonia	—	1	1	—	—	—	—	—	—	—	1	1
Total	8	8	16	4	—	4	1	—	1	3	8	11

\*Includes group 22, "without psychosis".

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

PSYCHOSES	Total		15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years		
	M.	F.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	4	-	-	-	-	1	1	-	-	1	-	1	-	-
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	1	2	3	1	1	-	-	-	1	1	-	1	1	-
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	1	1	-	-	-	-	-	1	1	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	2	3	5	-	-	1	1	-	-	2	1	1	2	-
13. Manic-depressive . . . . .	1	-	-	-	-	-	-	-	1	1	-	-	-	-
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	1	1	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	8	8	16	1	1	-	2	2	-	1	1	1	1	2

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses*

PSYCHOSES	Total			Less than 1 month			1-3 months			4-7 months		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Traumatic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Senile . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
General paralysis . . . . .	4	-	4	2	-	2	-	-	-	2	-	2
With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
With brain tumor . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
With other brain or nervous diseases . . . . .	1	2	3	1	2	3	-	-	-	-	-	-
Alcoholic . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Due to drugs and other exogenous toxins . . . . .	-	1	1	-	-	-	-	1	1	-	-	-
With pellagra . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
With other somatic diseases . . . . .	2	3	5	2	1	3	-	1	1	-	1	1
Manic-depressive . . . . .	1	-	1	1	-	1	-	-	-	-	-	-
Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses . . . . .	-	2	2	-	2	2	-	-	-	-	-	-
Without psychosis . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Total . . . . .	8	8	16	6	5	11	-	2	2	2	1	3





# The Commonwealth of Massachusetts

## ANNUAL REPORT

OF THE

## TRUSTEES

OF THE

## BOSTON PSYCHOPATHIC HOSPITAL, *General*

FOR THE

YEAR ENDING NOVEMBER 30,

1933

DEPARTMENT OF MENTAL DISEASES



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ELIZABETH LIBBER SHORE, *Treasurer*.

<sup>1</sup>By arrangement with the Department of Mental Diseases.

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## REPORT OF THE TRUSTEES OF THE PSYCHOPATHIC HOSPITAL To His Excellency the Governor, and the Honorable Council:

Once again we would draw your attention to what we conceive to be a very interesting document, the annual report of the Boston Psychopathic Hospital for 1933. As Trustees, we have a great feeling of pride in the excellent accomplishment of that institution.

In the report many interesting matters are covered, such as the effect of the economic depression upon the incidence and character of the mental upset that brought patients to the hospital. Incidentally, the need for economy has been reflected in some limitations of work done but we are happy to say that these have not been very extensive, very acute, and not altogether insuperable. On the whole, the nature and amount of work done at the hospital does not vary greatly from year to year.

Again there would be some difficulty in choosing as most outstanding the accomplishment of the various departments. Dr. Solomon's service has a national reputation; the work of the psychological division under Dr. Wells has certain unique values; the work of the general staff has in a remarkable way the confidence of the members of the medical profession and of the public generally. All departments are kept busily engaged by the great intake and rapid turnover of patients.

You may note that several chiefs of divisions speak of cramped quarters. This continues to be a handicap.

The Medical Director, with his broad outlook upon the problems of mental disease, has once more set forth in succinct case histories the complex factors that go to produce a mental breakdown. Perusal of these shows how vital it is to continue investigative and therapeutic effort along many lines.

The Trustees have regretted deeply during this past year the loss of Dr. Kline and of our own Chief Executive Officer, Dr. Cottrell.

To the Medical Director of the hospital and his staff we continue to be grateful for the fine scientific and humane spirit which is displayed at all times at the hospital.

Respectfully submitted,

WILLIAM HEALY, *Chairman*  
ESTHER M. ANDREWS, *Secretary*  
CARRIE I. FELCH  
ALLAN W. ROWE.

WILLIAM J. SULLIVAN  
CHANNING FROTHINGHAM  
CHARLES F. ROWLEY  
*Trustees.*

## MEDICAL DIRECTOR'S REPORT

To the Board of Trustees of the Boston Psychopathic Hospital:

In accordance with the provision of the statutes I submit for your consideration the report for the statistical year ending September 30, 1933 and for the fiscal year ending November 30, 1933.

### ON THE GENERAL WORK OF THE HOSPITAL

During the past year the Boston Psychopathic Hospital has continued to carry out its three main functions, (1) as a health unit specially designed to meet the needs of patients with special handicaps and disabilities; (2) as a centre of invest-



igative activity, carrying on research into the underlying causes of nervous and mental disorders, with special interest in their prevention: (3) as a centre of instruction where physicians and other professional workers learn to deal with the theoretical and practical aspects of nervous and mental disorders.

The nature of the clinical work at the hospital does not change very much from year to year as it is determined not by the special interests of any group of physicians but by the actual disorders of the patients who are brought to the hospital. The general run of these disorders does not alter considerably, although general changes in social habits and conditions are reflected to a minor extent in the admissions to the hospital. During the years of prohibition the change in drinking habits and the extensive bootlegging familiarized the physicians with clinical pictures somewhat different from those due to the drinking habits before prohibition.

The prolongation of the economic depression has also, to a certain extent, been reflected in the clinical work of the hospital. Individuals who had been able to carry on for a reasonable period under conditions of economic stringency would finally break down. Patients who in normal times would have been looked after at home or outside of the hospital would be referred to the hospital for treatment. Unemployment not only contributed to the final breakdown of many individuals but also made it difficult for the physicians to re-establish the patient in his natural environment by arranging for some suitable occupation.

The fundamental problems, however, which involve the greatest strain on human nature are not the frank and open difficulties of maintaining economic independence, but rather the intimate problems of personal value and of personal relationships with regard to which the individual is often thrown back upon himself and with which he is not accustomed to deal in a vigorous and wholesome manner.

The sources from which the Boston Psychopathic Hospital derives its cases remain approximately the same. Some patients come spontaneously to the hospital for help, recognizing that they have some nervous condition which requires investigation and willing to come to a hospital which is situated in the neighborhood of a variety of general hospitals. Some patients do not recognize their need or do not have enough spontaneity to take steps about it, but are brought by their relatives or their physicians or are transferred from general hospitals. The simplicity of the procedure necessary for admission to the Boston Psychopathic Hospital has the great advantage of making it possible for a patient with an incipient mental disorder to obtain help at the earliest period and with the minimum obstacles. Elaborate formalities which in the past have been required as safeguards to prevent any sinister interference with the liberty of the subject are slowly coming to be seen in their real light as serious handicaps in the way of early treatment.

Besides those cases which come to the hospital on account of obvious nervous or mental disorders, either recognized by the patient or by the relatives, there are other patients with regard to whom a medical opinion is requested although the problem which they present is not *prima facie* medical. Thus during the past year there has been an increasing number of cases referred by the courts and by the police for a psychiatric opinion on the condition of the individual. It is very gratifying to think that, in dealing with problems of public order and the administration of justice, the authorities are becoming progressively more alert to the fact that disorders of behaviour may be the symptoms of some underlying defect or ailment and so frequently take steps to have this possibility considered before they dispose in a statutory way of the individual and his conduct.

Welfare organizations also frequently refer their wards to the hospital although the primary problem may be dependency, neglect of children, irregular and inferior lives, marital disharmony; they suspect that these social manifestations may be the surface expression of important underlying mental defects or disorders. Workers in welfare agencies realize that for good case work it is frequently necessary to have selected members of a family reviewed from the psychiatric standpoint. The school authorities, too, realize that the disciplinary problems of the schoolroom and the lack of progress of the child can sometimes only be adequately dealt with after one has carefully surveyed the child and the home. In some children congenital syphilis, an old attack of encephalitis, some disorder of the internal glands

may explain the lack of normal mental development. In other cases the trouble may lie in some peculiar handicap such as the specific difficulty in learning to read which is characteristic of some children. In others the problem is not some characteristic of the individual as an isolated unit but is due to the special relationship between the child and other members of the family, whether this special relationship be a bond of disproportionate affection or, on the other hand, a latent hostility and antagonism.

During the past year a successful endeavor has been made to establish still closer relations than before with the social agencies dealing with the various aspects of human relation and bringing comfort and support to individuals and households somewhat overwhelmed by the complexities of the modern environment.

The work done by the hospital represents much more than the study and treatment of a number of clean-cut disorders; it represents a large measure of cooperation with other social agencies dealing with complex personal and family problems.

The statistical tables included in this report present the work of the hospital under somewhat formal headings, which represent the technical medical classification of the patients. These technical tables may fail to give to the laymen any clear impression of the concrete work done by the hospital and of the variety of problems represented by individual patients. In order to fill out the skeleton of these statistical tables one may in this, as in previous reports, give a brief statement of the actual problems presented by patients. The following cases represent a consecutive series taken at random.

A.B., aged 59, an Irish laborer, an extremely quiet man of limited interests and few friends, had some months previously been discharged on account of his drinking habits. After a prolonged drinking bout the patient began to hear voices; he complained to the police of imaginary annoyances and was brought to the hospital. The patient cleared up in a few days and was able to return home ten days after admission.

In such a case one has to consider not merely the poisonous effect of alcohol upon the nervous system, but the cause of the alcoholic indulgence. Alcoholic indulgence is not a problem merely of individual psychology but involves many social factors; in the present case one had to consider what facilities in the cultural environment were offered to the patient for living out a full human life and for enabling him to get wholesome satisfaction from his individual endowment.

B.C., aged 39, an Irish laborer, was brought to the hospital because in an alcoholic excitement he had been threatening to kill the baby, had attempted to jump out of the window. The patient had been drinking to excess since the death of his first wife one year previously, during that time he had convulsive seizures. The patient cleared up rapidly after admission. He made light of his chronic alcoholism, did not seem in the least concerned about the fact that he had seizures, denied any memory of his outrageous behaviour when drunk. He showed no interest in discussing the significance of his alcoholism and his wife took him away from the hospital against the advice of the physicians.

In this case, as in the previous case, the complex social factors required investigation; from the more narrow medical standpoint the occurrence of convulsive seizures was of special interest.

C.D., aged 52, a skilled mechanic, was referred to the hospital by the court on account of an alleged sexual assault on a woman. The regular examination of the various bodily systems revealed no defect and the patient showed no signs of any mental disorder during his stay in the hospital. The marital situation was rather uncertain, the facts of the alleged assault not clear. The patient made accusations of infidelity against his wife, while, according to her story, he was a man of ill-balanced sexuality.

In such a case the hospital acts as adviser to the court and here it was only able to state that there was no convincing evidence either of mental disorder or of mental defect. The disposal of the case remained, therefore, a matter for the court to decide. Although there was no recognized mental disorder present, the sexual instinct had in this individual evidently presented a problem of unusual difficulty. The question arises how far early sex education would have prevented the marital discord and obviated the incident which brought him into court.



D.E., aged 52, a shoe-worker, was brought to the hospital on account of his behaviour towards his family. He had a bad temper, threatened and abused various members of the family. No organic cause for his unstable behaviour and ill-balanced conduct was found and there was no evidence of any morbid ideas or hallucinations. The situation was one of considerable domestic friction, only partly due to the patient; the practical problem was to give the members of the family a somewhat more objective outlook and to encourage a mutually tolerant attitude.

E.F., aged 46, a salesman owing to business reverses had attempted to commit suicide. On admission to the hospital he was mentally confused due to poisoning by carbon monoxide gas. In a week his general condition had become much better; his memory was still extremely poor, and he was transferred to another hospital for further treatment.

F.G., aged 56, a printer, was admitted on account of progressive impairment of memory and increasing irritability. He had for two years suffered from convulsive seizures. The cause was organic brain disease which neither lent itself to operation nor to drug treatment.

G.H., a lad of 17, who gave his age as 15, had behaved in a rather wayward manner in his boarding house. He had attempted to jump out of the window and was referred to the Boston Psychopathic Hospital. The boy gave a thoroughly untrustworthy account of his life. The Social Service Department made an investigation through various social agencies and found out the real home of the boy in the middle West and had arrangements made for him to return home. The boy showed no evidence of any mental disorder. The problem was one of adjusting an atypical personality to the restrictions of social life.

H.I., aged 31, a professional woman, since childhood had much difficulty in dealing with the sexual instinct. In the late twenties she had consulted a physician and a priest without benefit. Her difficulties continued and she passed into a condition in which she imagined that she was in communication with a variety of men, her behaviour became quite erratic and excited. The mental disorder was of a serious type and complete recovery was unlikely. Her sex difficulties seemed closely connected with the mental breakdown; there was no evidence that in her early life she had received any helpful advice or information in regard to this important topic.

I.J., aged 61, a married woman, for three years had shown progressive memory defect, difficulty with speech, lack of personal cleanliness and care. The deterioration was due to organic brain disease, secondary to thickening of the blood vessels.

J.K., a lad of 20, was referred to the hospital by the court on a charge of lewd talk and behaviour. There was no evidence of any organic brain disease. Psychological tests showed that he was feeble-minded. The community has to work out the problem how far it can assimilate and safeguard the defective individual, and what type of defective individual has to be looked after in special institutions.

K.L., a lad of 20, was referred to the hospital by the court on account of peculiar ideas and behaviour. He was on probation at the court owing to a trifling larceny during the previous year. The patient showed a series of morbid ideas and claimed that he had been hearing many voices; he felt that he was hypnotized and that there had been complicated social maneuvers going on to his detriment. It was interesting to find that his brother and mother accepted the patient's statements and did not look on them as delusions. There was no evidence of any organic disorder of the central nervous system or other bodily systems.

L.M., a girl of 20, was referred by the court where she had been brought on a charge of being idle and disorderly. She showed a condition of mental defect, with a mental age of eight years. In the hospital she was somewhat wayward, her behaviour was rather odd. The problem seemed to be that of an individual with congenitally inferior endowment, unable to adapt herself to the demands of the ordinary social life.

M.N., a man of 56, who had never married on account of his devotion to his mother, had for months been very much worried over business difficulties and finally developed morbid fears; he thought that he might be arrested, that politicians were after him.

In a condition of this type stress is apt to be laid upon the external business difficulties but the condition may be closely related to the failure of the patient to live out a normal mature life, to internal tension and conflict, to unsatisfied instincts.

N.O., a man of 50, a chauffeur, belonged to a small and eccentric religious sect. Always a quiet man, he had recently become extremely preoccupied with religious topics and finally had behaved in a very erratic way; he had a morbid apprehension that something was going to happen. There was no physical condition to explain the change in his personality and the absurdity of his behaviour. In the hospital he did not wish to discuss with the physician the significance of his religious beliefs nor the nature of his own personal difficulties. The patient was transferred for further care and treatment.

O.P., a high school boy of 17, two years previously had a convulsive seizure. Ten days before admission to the hospital he began to feel vaguely unwell, six days later he had a convulsive seizure. On the following day for a brief period he showed a peculiar lack of response to those around him. Interviews with the patient elicited the fact that his convulsive seizures had occurred under conditions of emotional tension. The first attack two years previously had occurred when he found that he was not to be promoted in school; the more recent seizure had occurred after a quite unusual quarrel with his sister. It appeared, therefore, as if external situations as well as some special instability of the nervous system played a role in the production of individual attacks.

P.Q., a bookkeeper, aged 59, for seven years had suffered from pernicious anaemia for three years he had diabetes. Two months before admission he began to worry and to talk of past misdemeanors; he was very agitated and clamored for forgiveness. His condition in the hospital was one of considerable agitation. It appeared probable that with continuation of his medical regime and with an opportunity to review frankly his preoccupations, his condition would be considerably relieved. His wife, however, failed to cooperate in the program and he was removed after a few days in the hospital.

Q.R., a woman of 40, was firmly convinced that her body was full of poison and that she had many serious symptoms, although a thorough review in a good hospital revealed no physical disorder. The mother of four children, she had throughout all her married life had friction with her alcoholic husband. It was difficult to trace the origin of her symptoms to her actual difficulties. The patient was of shallow and ill-balanced constitution; for further treatment it seemed advisable to transfer her to another hospital.

R.S., a single woman of 32, was admitted on account of various bodily pains and mild depression. Her personality had changed since the interruption of a love affair four years previously through the interference of a relative. She had become profane, less dependable, more interested in her personal appearance and had recently shown very erratic conduct, on one occasion leaving her house in pajamas and bathrobe. The patient at first made the impression of having a rather mild and dramatic reaction to sexual difficulties; but during her brief stay in the hospital her behaviour became much more erratic and ominous and the outlook for complete recovery was much worse.

S.T., aged 48, was admitted to the hospital after she had threatened her husband and talked of suicide. For many years her conduct had been progressively more inefficient; she drank and was subject to attacks of excitement. In the hospital the patient showed little disturbance of behaviour, was somewhat unstable emotionally and circumstantial in her account of her life. She gave a history of a very unhappy home situation but it was not possible to determine whether she or her husband was the more to blame. She had been for many years accustomed to drink but claimed that she only drank with her husband. It seemed advisable to transfer the patient to another hospital for a somewhat longer period of observation.

T.U., aged 58, a mechanic, had for the past year been more difficult, irritable, jealous and at times abusive. The poor behaviour of the patient seemed to be due to organic changes in the brain, partly due to chronic alcoholism, partly to an episode of carbon monoxide poisoning.

The above consecutive series of cases gives a general sample of the patients ad-



mitted to the hospital, but some of the special problems presented by patients may be illustrated by a few other cases who were admitted at approximately the same period.

U.V., aged 57, a glove cutter by occupation, for some years had suffered from gastric symptoms and had been treated in hospital. He was accustomed to take very large amounts of drugs for headache. Four months before admission he had been operated on for hernia. At that time his heart action was poor and required treatment. He was admitted to the Boston Psychopathic Hospital on account of mental confusion with visual hallucinations. In the hospital he quickly cleared up and was able to leave in a few days.

V.W., a young woman of 24, after delivery in another hospital had severe bleeding, became delirious and excited, and was admitted to the Boston Psychopathic Hospital. After a few days she improved but the improvement was not maintained and the patient died suddenly eleven days after admission.

W.X., a woman of 43, separated for over a year, had shown difficulty of gait and a change of personality and efficiency. There had been one convulsive seizure. The patient was found to be suffering from diffuse organic disease of the central nervous system for which no special treatment was available.

X.Y., a married woman of 52, after an attack of pneumonia became confused and suspicious with somewhat variable mood. She heard voices, did not know where she was. There had been other physically reducing causes besides the pneumonia. The mental symptoms were apparently secondary to the physical impairment and during a week spent in the hospital the patient made marked improvement; it was thought wise to arrange for further stay in a state hospital until she should completely recover.

Y.Z., a widow of 55, suffering from cancer of the uterus, had been depressed and attempted to commit suicide. The depression, however, was not related to worry about her physical condition but owing to the recent tragic death of her sister. The condition of the patient was one of pronounced depression and the patient required careful supervision so that she might not do herself any harm.

A.Z., aged 29, had various nervous feelings from time to time, was easily startled, found it difficult to concentrate, was annoyed by obsessive ideas. A tonsillectomy had done her no good. The nervous symptoms seemed to be determined to a certain extent by personal conflicts in regard to the problem of marriage and emancipation from her mother. The treatment of the case did not require continued stay in the hospital, as a series of interviews could be arranged for in the outpatient department.

B.Y., aged, 20, had a sudden episode of confused behaviour during which he returned home; later he had no memory of this episode. A review of the condition indicated that he was a somewhat sensitive boy, emotionally too dependent on his mother, and the above episode seemed to be determined by special emotional factors.

These brief notes on the actual problems presented by the patients in the hospital illustrate the field which has to be covered by the physician. The individual patient needs not only a thorough review of the bodily functions but also an analysis of the personality and of the past experiences which have moulded it and a survey of the environmental situation with its stresses and its resources.

The few cases reported above include individuals suffering from pernicious anaemia, from diabetes, from gastric ulcer, from complications after childbirth, from cerebral syphilis, from chronic alcoholism, from poisoning by carbon monoxide, from prolonged use of various drugs, from vascular disease of the brain. The study of a mental disorder involves the same review of the physical condition of the patient as is required in the general hospital, and if the same level of efficiency is to be attained it is necessary that there should be the same equipment and personnel for making the requisite special examinations.

In addition to the review of the physical systems the physician has in the case of a mental disorder to analyze the personality, to study its special assets and liabilities, to study his special type of sensitiveness in order that the vulnerability of the patient may be reduced.

It is not enough, however, to establish an equilibrium between the conflicting

forces of the personality. It is advisable to see that the individual is not exposed to environmental strains beyond its powers of resistance; the individual must be helped to utilize the cultural resources of and to derive support from the social environment.

In the cases briefly referred to above one sees the role played in the mental disorder by disturbing domestic and social factors. One sees the importance of the relations between parents and children, between husband and wife, and between the individual and the social group.

The complexity of the situation is such that a thorough examination involves a heavy expenditure of time. It is only in a few cases that such a detailed investigation can be made. In the majority of cases admitted to the hospital the review of the case does not go far beyond what is required in order to make a satisfactory diagnosis and to outline the further program of care and treatment. In a small number of cases it is possible to make a more intensive and thorough study. In some cases the study and treatment of the patient is carried on over a protracted period and is followed by careful supervisory work during the readjustment of the patient to life outside the hospital.

#### ON THE VARIOUS ACTIVITIES OF THE HOSPITAL

The care and the treatment of the patient can only be adequately carried out with the help of a well organized personnel. The bedside examination of the patient, the technical laboratory procedures, the ward care and nursing supervision, the special hydrotherapeutic procedures, the program of occupational activity require a number of technical assistants and their willing cooperation.

The bedside examination of the patient is supplemented by the study in the laboratory of various functions and secretions. The report of the biochemical laboratory indicates the extent of these special examinations and something of their significance.

In the care and ward treatment of the patients, besides the more technical procedures of the physician an important factor is the influence exercised by the nurses and attendants. The role of the mental nurse is somewhat different from that of the nurse in the general hospital. There is less demand for purely technical and impersonal procedures, and more need for imagination and intuitive insight. The physician helps the patient overcome unwholesome repressions and to review frankly his total endowment, he furnishes reassurance and encourages the patient to go on with his task and to regain a feeling of security and personal value. The nurse in her daily contact with the patient is of great value in relieving fear and in giving reassurance, in modifying feelings of inferiority and encouraging feelings of personal worth. The nurse may do much to help the patient to reestablish contact with the social group, to feel a certain degree of solidarity with his fellows and to contribute what he can to the amenities of the social situation. The patient who is reticent with the physician may unburden herself to the nurse.

In order that the nurse may carry on her task intelligently and not see it reduced to the dull level of mere custodial care she must have some insight into the mechanisms of mental disorders, must grasp the significance of familiar symptoms, must understand the general trend of the medical treatment. The medical staff is bound to give the nursing group some insight into the disorders of the patients for whom they are daily caring. At the Boston Psychopathic Hospital there is constantly on duty a group of affiliated nurses from general hospitals who spend three months training in the hospital. During this period these nurses get a course of instruction in which the members of the staff take a very active part. At the same time the chiefs of service have it as one of their functions to see that the nurses in charge of the various services have a sufficient realization of the problems of the individual patients to be able to deal with them in the most helpful way.

#### ON THE DEPARTMENT OF OCCUPATIONAL THERAPY

In many cases no physical ailment keeps the patient in bed, the patient is physically fit to go on with the ordinary conduct of life but is temporarily debarred from his ordinary program by the mental disorder. It is very important that while the physician is doing what he can to deal with the special disturbance of the patient



he should encourage the patient to utilize as fully as possible the resources which are still available. Compulsory idleness has a very deleterious effect on the normal individual and equally so on many a case of mental disorder. Idleness fosters unwholesome daydreaming, accustoms the individual to a passive and unproductive attitude, represents a dependent and immature attitude rather than the wholesome independent attitude of the self-supporting and productive adult. From many points of view a good working program is of great importance for the patient. It increases self-respect and independence, it accustoms the individual to a wholesome output of energy, it brings in satisfaction from normal functioning and from producing articles of recognized quality. It gives an opportunity of producing material which is of value to the social group and which therefore does justice to the social needs of the individual. It has, in addition, the practical value of making it easier for the patient to step out from life in the hospital to a productive life outside; the patient thus escapes a trying period of readjustment to occupational demands. In some cases the occupation followed in hospital has a financial value to the patient when he leaves or if not a financial value it may serve the role of a very useful hobby.

During the past year the Occupational Therapy Department has continued to carry on its important function admirably as in previous years.

#### ON THE SOCIAL SERVICE DEPARTMENT

The care and treatment of a mental disorder involve more than a study and a readjustment of the isolated individual. The disorder itself may be a complicated problem of unsatisfactory adjustment to a complex social environment. The treatment may involve some modification of the environment if the improvement of the individual is to be made permanent. With a patient in general hospital, whose faulty circulation has been temporarily restored, it is poor economy to send him back to heavy mechanical work, under which the heart will certainly soon break down again. It is equally uneconomic to discharge a patient from a mental hospital without paying attention to the later tasks of the patient and considering in what way the stresses and strains involved in the environment may be modified.

It is frequently necessary, therefore, to consider the value involved in the homes, the neighborhood, the factory or office, the special social contacts of the individual. Such an investigation requires its own special technique and experience and it is the role of specially trained social workers to take up this investigation. Such an investigation makes it possible for the physician to estimate the factors which have led to the breakdown of the patient and enable him to outline the later program of the patient in a more profitable way. It may be necessary to modify the atmosphere of a home, to discuss many matters with the parents in order that a child may return to the home with a better chance of unimpeded development. In some cases it may be advisable to choose a substitute home. The social worker may have to interview the teacher in order that the atmosphere of the schoolroom may be more wholesome for the individual child or so that the contacts of the playground may not be unnecessarily disturbing. The social worker may enter into the home in order that marital relations may be placed on a better basis and so that the needs and interests of both parties may receive due recognition and so that unnecessary conflicts may be avoided. Similarly the resources of the community may be more fully placed at the disposal of the patient through the worker's contact with employers, pastors, social organizations for recreation, employment or relief. Where a patient is referred by the court it is considered obligatory to make a thorough study of the social situation so that the special conduct of the individual may be seen on the background of the social situation and constructive suggestions made with regard to the issues involved. In the random sampling of cases given above the cooperation of the hospital with the court is illustrated.

#### ON THE WORK OF THE OUT-PATIENT DEPARTMENT

As medicine progresses prevention comes into the foreground of interest rather than the treatment of well established disorders. One of the chief aims of medicine is to eliminate those conditions which give rise to disease and which lend themselves to control by the community. In the treatment of disease more and more stress is laid upon the early recognition of disease and on treatment at the very earliest stage when the chances of recovery are most favorable. In the field of mental

disorders this tendency to make treatment available at the very earliest stage is aided by sweeping aside all restrictive regulations, by making both the laity and the general practitioner familiar with the early signs of mental disorder, and by helping the community at large to look at mental disorder in a frank and open way.

It is important, therefore, that the mental hospital should not only be prepared to receive patients sufficiently sick to require treatment in a hospital, but should have consultation facilities available for those who have only some indication of a possible mental disorder or whose mental disorder does not interfere seriously with their carrying on normal domestic, social and occupational activities.

The out-patient department of the hospital therefore has a very important function. It is available for consultation with regard to any of the problems connected with mental disorders, and thus aims to forestall disaster and to treat the patient before a serious disorder has had time to be established.

The report of the out-patient department shows from how many sources in the community patients are directed to it. In the endeavor to make the out-patient department of maximum usefulness and efficiency it has now been run for some years on an appointment basis. The patient is thus encouraged through a minimum expenditure of time to come to the hospital for a review of whatever symptoms demand attention. It has been found that the appointment system not only saves time but also enables much more intensive and consistent work to be done with the patients.

This branch of the hospital helps many patients to carry on outside and be productive at home or in industry who, unable to carry on without such help, might have been admitted to the hospital. It also furnishes a point of contact with the patient who has left the hospital and who for a short time may report back at intervals in order that the treatment instituted in the hospital may be carried on, and the personal help of the physician be continued for a short time.

The report of the department shows what a large proportion of the patients is juvenile. Increasing emphasis is being laid upon the study and treatment of children. The seeds of later mental disorders are often sown in early years and the first indications of somewhat dangerous tendencies may be discerned at an early stage and corrective influences may be brought to bear upon them. It is not easy to measure precisely the exact effect of work of this nature. It is difficult enough to determine statistically the effect on the general health of the population of the attention given to the teeth and tonsils and nutrition of individuals in childhood. The fact that it may be difficult to estimate statistically the value of the work done does not modify our conviction that preventive work of very great value is being done in the out-patient department.

#### ON RESEARCH

While one of the main functions of the hospital is the application of already existing knowledge to the treatment of cases of nervous and mental disorders, another function is the promotion of investigation into the causes and treatment of insanity. It has always been intended that the Boston Psychopathic Hospital should represent one of the growing points in the field of psychiatric research, and investigative activity has been consistently encouraged since its establishment. The scope of the investigative activity, however, has been sadly restricted by limitations of structure and of finance. Investigation tends to require an increasingly elaborate equipment and personnel with the requisite space for their accomodation. Research into the fundatmental causes of disease as into other problems must follow the natural direction of investigation, which is not straight forward and continuous but which often follows a somewhat interrupted course due to the influence of chance observations, new discoveries in allied fields, attractive hypotheses. Scientific investigation does not promise any immediate practical return. It often seems to be occupied with somewhat remote theoretical details. The practical man may look askance on the expenditure of money in this pursuit. It may be, however, through pursuing apparently remote lines of investigation that obscure points will be cleared up and very important practical gains for the health of the community be achieved.

The various laboratories at the Boston Psychopathic Hospital are extremely cramped in their quarters. The space which would naturally be allotted to the



pathological laboratory of the hospital is allotted to the special work of the department, and the hospital has no pathologist of its own to carry on continuous investigations into the structural changes associated with those cases of mental disorder which terminate fatally. The biochemical laboratory and the psychological laboratory are both hampered in their activity by lack of space.

Notwithstanding these restrictions, the reports from these laboratories show that there has been a steady program of research into fundamental problems carried on during the past year.

Investigation, however, is not confined to the laboratories. In the laboratories one may search out systematically the minute structural changes that go with mental disorders, the obscure changes in the chemical balance of the system that are associated with variations in mood and behaviour, the underlying evidence for the presence of infective processes or faulty action of the vegetative nervous system. It is equally necessary in the wards to broaden and deepen our knowledge of the actual symptoms of mental disorder, their course, their underlying personal sources, the relation of the disorder to the early conditioning factors in the home and the schoolroom, the relation of the mental disorder to the economic and social conditions of the patient's life.

Investigations on the importance of personal characteristics and of environmental factors in the causation of a familiar type of mental disorder have been carried on during the past year, the research being aided by funds from the outside. This work continues studies made during previous years, the results of which have been published from time to time.

In addition to the continuation of this special attack on certain broad problems of the development of mental disorders, members of the staff have concentrated on various more specialized researches. Thus a beginning has been made in an investigation on the fundamental processes associated with the ingestion of alcohol. The alcoholic psychoses promise to continue with us for many years and there are many unknown factors associated with these conditions.

Investigative activity is not only justified by its special results, it is of the greatest value for maintaining that alert and open-minded attitude in face of the individual patient which is the best guarantee of a helpful attitude and constructive treatment. Unless there is a wholesome atmosphere of investigative activity, treatment is bound to become standardized and routine and the level of the general medical work is lowered. It is important, therefore, even for the satisfactory maintenance of the service function of the hospital that investigative activity should receive a generous measure of support. In view of the limitations of the present structure it was a great disappointment to find that the proposal, submitted this year, to add to the structure of the building and to furnish adequate space for the steadily increasing laboratory activities did not receive the financial indorsement necessary for its execution.

#### ON THE HOSPITAL AS A TRAINING CENTRE

The hospital serves not merely as a service station for the sick and as an investigative unit but as a centre where professional workers in this medical field get an opportunity of becoming familiar with special problems. The individual worker finds at the hospital an opportunity of becoming more familiar not only with his own specialized discipline but with the integration of his own special activity into the general functioning of the hospital.

The hospital offers opportunities for training not only to physicians who may later be going into general practice or may be intending to specialize in the general field of psychiatry or in such departments as industrial psychiatry, court psychiatry, school psychiatry, it also offers opportunities to the psychologist whose interest may not be purely academic but who may be specially interested in the application of psychology to problems of human adaptation.

On the wards fourteen affiliated nurses get a three months' opportunity of becoming familiar with this special field of nursing and the familiarity thus gained in dealing with the personal problems of patients will be of the greatest value to them no matter in what field of nursing they will later be engaged.

The social service department gives student social workers an opportunity for

learning the technique of the study of individual, domestic and social problems and for grasping the general principles involved in this branch of social work.

In a similar way occupational therapists in training have an opportunity of applying their specialized training and school knowledge to the concrete problems presented by the patients in the hospital.

If these students in various disciplines gain much from their time spent at the hospital, they at the same time make a very great contribution to the work of the hospital. The eager and alert interest of the students brings a fresh point of view to familiar problems, challenging procedures and requiring clear and systematic review of the situations which are presented by the patients; they thus help to maintain a very wholesome atmosphere of inquiry and intelligent discussion.

#### ON THE GENERAL ADMINISTRATION OF THE HOSPITAL

The varied activities of the hospital as indicated in the reports from the special departments require to be coordinated. The hospital with its many interests and with the insistent demands made upon it by the large admission rate is a complicated machine for the smooth running of which the Chief Executive Officer is largely responsible.

In July 1933 Dr. Samuel Smith Cottrell who for over a year had been Chief Executive Officer, died after a very brief period of sickness. Dr. Cottrell had shown an unusual degree of initiative and of imagination and had shown special energy in dealing with the living conditions of the employees which had been a source of much friction for years. His institution of a cafeteria was a great boon to the hospital. His colleagues felt his death in the prime of life as a tragic blow.

It was fortunate that Dr. Arthur N. Ball, who had previously been Chief Executive Officer at the hospital, was available to take up the executive duties at the hospital on the death of Dr. Cottrell. His familiarity with the needs of the hospital prevented any serious interruption in its smooth running.

Earlier in the year, in January 1933, the Boston Psychopathic Hospital, with all the other state hospitals, suffered a great blow in the death of Dr. George M. Kline, Commissioner of Mental Diseases. Dr. Kline was a great administrator and there has been placed on record in many places the appreciation by various organizations of his qualities as administrator, physician, man of science. It may here be in place to express personal appreciation for the encouragement and support which Dr. Kline had given to your Medical Director during twelve years of service.

In finishing this report it is appropriate to express appreciation for the loyal services which, during the past year, have been given by the professional workers in their various departments and by the employees of the hospital. In the professional work of the hospital, with its obvious limitations and restrictions and opportunities for friction, it is a great comfort to have had this year, as in the past, an atmosphere of good comradeship, willing cooperation and subordination of minor personal interests to the main task of doing the best for the handicapped patients admitted to the hospital.

I wish to thank the Board of Trustees for their continued interest in the efficiency of the hospital and for the generous way in which they have given of their time and energy in dealing with many practical problems which have arisen.

It is a great pleasure to express appreciation of the support which has been received from Dr. James V. May, the new Commissioner of Mental Diseases. Notwithstanding the many demands made upon the Commissioner, the special difficulties associated with the assumption of his new responsibilities in a year of exceptional difficulty, the duties which devolved on him as President of the American Psychiatric Association in a year when it held its annual meeting in Boston, Dr. May has been able to give sympathetic consideration to all problems connected with the Boston Psychopathic Hospital which were presented to him.

Respectfully submitted,

C. MACFIE CAMPBELL,  
Medical Director.

## Annual Statistics Classified according to Legal Status, October 1, 1931 to September 30, 1932

Psychoses	All First Admissions			All Readmissions			First Admissions by Regular Court Commitment			Readmissions by Regular Court Commitment			Temporary Care First Admissions			Temporary Care Readmissions			Voluntary First Admissions			Voluntary Readmissions		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Traumatic psychoses . . . . .	5	-	5	-	-	-	1	-	1	-	-	-	3	-	3	-	-	-	-	-	-	-	-	-
Senile psychoses . . . . .	2	1	3	-	-	-	-	-	-	-	-	-	2	1	3	-	-	-	-	-	-	-	-	
Psychoses with cerebral arteriosclerosis . . . . .	9	15	24	3	2	5	1	1	2	-	-	-	7	14	21	3	2	5	1	-	1	-	-	
General paralysis . . . . .	70	15	85	11	6	17	33	1	34	1	1	-	33	14	47	7	6	13	4	-	4	3	-	
Psychoses with cerebral syphilis . . . . .	7	-	7	1	1	2	1	-	1	-	-	-	6	-	6	1	1	2	-	-	-	-	-	
Psychoses with other brain or nervous diseases . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tubercular meningitis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	
Multiple sclerosis . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	
Tabes dorsalis . . . . .	1	-	1	2	-	2	-	-	-	-	-	-	1	-	1	2	-	2	-	-	-	-	-	
Encephalitis lethargica . . . . .	2	1	3	2	-	2	1	-	1	-	-	-	1	1	2	4	7	11	-	1	1	-	-	
Undetermined . . . . .	37	22	59	4	7	11	1	5	6	-	-	-	36	16	52	4	7	11	-	1	1	-	-	
Other types . . . . .	8	2	10	1	1	2	1	-	1	-	-	-	7	2	9	1	1	2	-	-	-	-	-	
Alcoholic psychoses:																								
Delirium tremens . . . . .	25	4	29	6	-	6	-	-	-	-	-	-	25	4	29	6	-	6	-	-	-	-	-	
Korsakow's psychosis . . . . .	4	1	5	-	-	-	-	-	-	-	-	-	4	1	5	-	-	-	-	-	-	-	-	
Acute hallucinosis . . . . .	18	2	20	5	-	5	-	-	-	-	-	-	18	2	20	5	-	5	-	-	-	-	-	
Other types . . . . .	42	5	47	10	-	10	-	-	-	-	-	-	42	5	47	10	-	10	-	-	-	-	-	
Psychoses due to drugs and other exogenous toxins:																								
Due to gases . . . . .	2	-	2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	
Opium and derivatives . . . . .	4	4	8	2	-	2	1	-	1	-	-	-	3	4	7	2	-	2	-	-	-	-	-	
Metal, as arsenic, lead, etc. . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	
Other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Psychoses with pellagra . . . . .	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	
Psychoses with other somatic diseases:																								
Delirium with infectious diseases . . . . .	1	1	2	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	
Post-infectious psychoses . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Delirium of unknown origin . . . . .	6	1	7	1	-	1	2	-	2	-	-	-	4	1	5	1	-	1	-	1	-	-	-	
Cardio-renal diseases . . . . .	2	8	10	-	1	1	-	-	-	-	-	-	1	6	7	-	1	1	1	1	1	2	-	
Other diseases or conditions . . . . .	6	21	27	1	2	3	1	6	7	-	1	1	4	14	18	1	1	2	1	1	2	-	-	
Diseases of the Ductless glands . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	
Undetermined . . . . .	1	4	5	-	1	1	-	1	1	-	1	1	1	3	4	-	-	-	-	-	-	-	-	
Manic-depressive psychoses:																								
Manic type . . . . .	23	38	61	15	24	39	2	3	5	1	-	1	21	35	56	14	24	38	-	-	-	-	-	
Depressive type . . . . .	44	94	138	13	23	36	-	3	3	2	2	2	44	90	134	13	19	32	-	1	1	-	2	
Other types . . . . .	7	3	10	3	2	5	1	1	2	-	-	-	6	2	8	3	2	5	-	-	-	-	-	
Involution melancholia . . . . .	15	11	26	3	3	6	-	-	-	-	-	-	14	11	25	3	3	6	-	-	-	-	-	
Dementia praecox (schizophrenia) . . . . .	119	133	252	36	47	83	17	6	23	1	2	3	102	127	229	35	45	80	-	-	-	-	-	







## REPORT OF THE ACTING CHIEF EXECUTIVE OFFICER

*To the Board of Trustees and the Medical Director of the Boston Psychopathic Hospital:*

In returning after an absence of nearly two years to the duties of Chief Executive Officer at the Boston Psychopathic Hospital I find the executive routine and personnel, with the exception of the ward medical staff, to have changed but little.

During Dr. Cottrell's nineteen months as Chief Executive Officer he was able to bring about changes that his predecessors had advocated but had been unable to accomplish for over ten years. I refer to the concentration of all employees in one dining room convenient to the kitchen, with consequent lowering of costs and decided dietary improvement, not to mention improved housing, storage and office space resulting from four discarded dining rooms. On January 9, 1933, the new cafeteria was formally opened. It was developed from three rooms formerly used as nurses' dining room, attendants' dining room and the serving room for these two. In addition a small portion of the kitchen was also taken. This cafeteria seats 70 people, is beautifully decorated and equipped in the most approved and up to date manner. Even at the noon hour when on week days an average of 150 are served there is no congestion and no delay, and the food is served in a much more palatable form than was formerly possible under the old system of feeding from six dining rooms. The new cafeteria is surely a monument to the energy, concentration and salesmanship of Dr. Cottrell.

As noted above, the new arrangement of dining room space augmented to some extent the housing facilities of the hospital. It is, however, increasingly apparent that the activities of the Boston Psychopathic Hospital have far outgrown the housing facilities. A glance at the reports of admissions, out patient work, laboratory and research work and other activities carried out during the year within a building of such small size, will show a rather astonishing concentration. It is very evident that far more space than is available in the present plant is needed for some of the departments, particularly the Therapeutic Research conducted by Dr. Solomon. Additional buildings seem the only specific remedy for the difficulty and this matter has been often discussed by your Board. If more space is not to be had in the near future, I would suggest the removal of one or more departments to other locations where there would be an opportunity for the expansion that they deserve. It is hoped that funds necessary for rearrangement of laboratory space will be available during the coming year.

Budget expenditures during the year were carried out as scheduled, with the exception that \$1,500.00 was transferred from Personal Services to Medical and General Care. The latter item, while liberal as compared with the allowance given other State Hospitals, has never been ample to carry out desired treatment. In the matter of food we could have been somewhat more liberal, but I doubt that there would have been fewer complaints if expenditures had been doubled. There have been no complaints relative to food so far as I know from any patient, and it has been felt that employees should not at this time expect a fancy diet at public expense. With this thought in mind a strict economy is being practiced, but because of the recent great increase in the cost of most commodities it has been necessary to expend the entire budget allowance under many items.

The clinical activities of the hospital are discussed in considerable detail in the reports of the Medical Director and the many departments, and it is with some measure of pride that the Executive looks upon the clinical accomplishments of his associates.

I take this opportunity to thank the members of your Board for the uniform good will and helpfulness, and perhaps forbearance, they have always shown toward me.

Respectfully submitted,

ARTHUR N. BALL, M. D.,

*Acting Chief Executive Officer.*

## REPORT OF THE OUT-PATIENT DEPARTMENT

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith submit the annual report of the Out-patient Department for the year ending November 30, 1933.

The staff of the clinic during the past year was as follows:

Dr. C. Macfie Campbell, Medical Director of the Hospital.

Dr. Oscar J. Raeder, Chief of Out-patient Department.

Dr. Mary Palmer, Assistant Physician.

Dr. Charles B. Sullivan, Assistant Physician.

Miss Annie C. Porter, Clinic Manager.

*Special Workers:* Dr. Ella Prescott Cahill; Dr. Henry B. Elkind; Dr. Hortensia A. F. Robinson; Dr. Myer Brody; Dr. Arthur McGugan; Dr. Charles H. Kimberly; Dr. William J. Roth, Jr.; Dr. Conrad Wall; Dr. Joseph Michaels; Dr. Irma Bache; Dr. Gaylord P. Coon.

During the year 1932-1933 there were 752 new patients and 266 old patients, a total of 1,018. Of the new patients 367 were male, 385 female. Among the 367 male patients 198 were adults; 45 adolescents (14 to 18 years inclusive); and 124 were children. Of the 385 female patients 214 were adults; 95 adolescents; and 76 children.

Visits made by 752 new patients number 1953. Old patients made 924 visits, a total of 2,877 visits as compared with 2,782 visits made last year by 814 new and 244 old patients. There was a somewhat greater number of patients who were more intensively treated over a longer period of time.

The reasons for consulting the clinic were numerous. For convenience they have been grouped under the following headings: (a) behavior, 159 patients; (b) domestic, 28 patients; (c) educational, 76 patients; (d) neuropathic, 347 patients; (e) personality, 13 patients; (f) routine examinations, 77 patients; (g) vocational, 7 patients; (h) a miscellaneous group, 45 patients.

The most frequent complaints were those with neuropathic conditions. Under this heading we find 83 patients complaining of pains in various parts of the body. These were for the most part neurasthenics. Seventeen were brought to the clinic because of abnormal "mental condition", and 7 more for peculiar ideas. Various forms of dizziness, convulsions, spasms, seizures, spells made up the chief complaints of 24 patients; fears, simple and special, in 9 patients; depression in 45; nervousness and neurotic traits in over 40 patients. Speech difficulties, headache, anxiety, fatigue, insomnia, twitching, hallucinations, delusions, irritability, and many others too numerous to mention are included in this heterogeneous group. (See table).

The patients were referred from different sources as follows. Social agencies, 248; other hospitals, 129; private physicians, 101; relatives and friends, 101; own initiative, 48; school, 38; Boston Psychopathic Hospital, 32; court, 26; Department of Mental Diseases, 5; various, 24.

Among the diagnoses the psychoneuroses as usual rank first with 148 new cases, of which 79 were males and 69 females. There has been a further increase in the number of males over the females in this group. Last year 48% were males. This year 54% are males, an increase of 6%, the same increase as last year when the percentage of male psychoneurotics rose from 42% to 48%. Is the economic strain in these times of depression to be regarded as operative here? These men are preponderantly of the unemployed group and almost all worried by their inability to provide for themselves and their families. Frequently they are depressed also by the humiliation of being forced to accept public aid.

The next largest group was the retarded and feeble-minded group. There were 66 males and 91 females. These were largely children; only 9 were men and 12 women. Many of these were brought to the clinic for conduct disorders. Among the school children truancy, stealing, aberrant behavior, disobedience, running away from home, etc. were common complaints. In other words, emotional reactions due to inability to compete with their fellows and to derive satisfaction from their work because of subnormal intelligence brought these children in for psychiatric attention. Not rarely children of superior intelligence have also been conduct problems. In these cases, usually because their extra capacities were not being utilized, there was excess energy above the school work requirements which sought for expression and resulted in misconduct.



Psychometric tests were applied on 77 other patients with average or superior intelligence. These cases include such conditions as sex delinquency (unmarried mothers), conduct disorders (spoiled child, bad home situation) in which a normal child has been conditioned to abnormal behavior and wrong ways of living by neurotic or over-protective parents, etc. (See table for relative number of male and female patients, adults, adolescents, and children who were given intelligence ratings with the aid of special psychometric tests).

Under "normal children" of which 17 were so diagnosed, are found children brought up for adoption, some school and conduct problems in which bad home conditions or other extrinsic factors caused temporary anti-social conduct.

There were 26 "neurotic children", 15 males and 11 females. Enuresis, temper tantrums, disorders of sleep, etc. have been studied here.

Closely allied to these conditions are those included under "personality defect" 14 patients. It is often a difficult matter to determine into which category such a patient should be put.

There were numerous adults among the "deferred diagnoses" — cases of marital incompatibility, probably some psychoneurotics and other undifferentiated conditions.

For other types see table of "Diagnoses."

Under the law (Chapter 215, Acts of 1931) which requires a physical and mental examination of all children who are about to be committed to public institutions, there were 27 patients examined, 14 males and 13 females.

The school clinic survey for backward children in the Brookline Schools was again conducted by Dr. Mary Palmer of the Out-patient Department, aided by the following staff.

Mrs. Gertrude Pierce, teacher,

Mrs. Ada Joyce, visiting teacher, Brookline Schools,

Miss Viola M. Jones, psychologist.

Mrs. Gertrude Wells, psychologist,

Miss Beth Williams, student assistant psychologist.

The following is the report of this year's survey.

*Names of Schools and Number of Students Referred*

Baldwin . . . . . 17	Heath . . . . . 10	Pierce . . . . . 53
Cabot . . . . . 1	Lawrence . . . . . 1	Runkle . . . . . 53
Devotion . . . . . 11	Lincoln . . . . . 34	Sewall . . . . . 10
Driscoll . . . . . 16	Longwood . . . . . 2	
Total . . . . .		208

Boys, 147; Girls, 61.

Examined for first time: boys, 110; girls, 47; total, 157.

Examined for second time: boys, 37; girls, 14; total, 51.

*Classification of pupils examined for the first time on basis of Intelligence Quotient*

I. Q. 69 or less (Feeble-minded)			I. Q. 70-79 (Borderline)			I. Q. 80-89 (Dull)			I. Q. 90-109 (Average)			I. Q. 110 and over (Superior)		
T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.
8	4	4	19	13	6	27	16	11	82	64	18	21	13	8

Total: 157; boys, 110; girls, 47.

*Classification of pupils re-examined in 1932-1933*

I. Q. 69 or less (Feeble-minded)			I. Q. 70-79 (Borderline)			I. Q. 80-89 (Dull)			I. Q. 90-109 (Average)			I. Q. 110 and over (Superior)		
T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.
15	11	4	11	8	3	12	8	4	13	10	3	-	-	-

Total: 51; boys, 37; girls, 14.

*Recommendation for Special Class**First Examination:* total, 6; boys, 6; girls, 0.*Recommendation for Special Class — re-examination*

Total, 6; boys, 5; girls, 1.

*Retardation**53 students were 1 year retarded:*

- 4 were probably feebleminded.
- 1 was of borderline endowment.
- 12 were of dull normal endowment.
- 36 were of average endowment.

*45 students were 2 years retarded:*

- 2 were probably feebleminded.
- 12 were of borderline endowment.
- 16 were of dull normal endowment.
- 14 were of average endowment.
- 1 had an intelligence quotient of 114%.

*14 students were 3 years retarded:*

- 2 were feebleminded.
- 4 were of borderline endowment.
- 2 were of dull normal endowment.
- 6 were of average endowment.

*2 students were 4 years retarded:*

- 1 had an intelligence quotient of 68% with a reading disability.
- 1 had an intelligence quotient of 74% with a reading disability.

*Reading disabilities:* 68 students. The total is especially high because a number of children were referred from the first and second grades. These, with few exceptions could obtain no credit in reading tests.

The following table is an analysis of these 68 students:

<i>Grades</i>	<i>Students</i>	<i>Grades</i>	<i>Students</i>
Special . . . . .	5	Fifth . . . . .	14
First . . . . .	13	Sixth . . . . .	5
Second . . . . .	16	Seventh . . . . .	1
Third . . . . .	9	Eighth . . . . .	1
Fourth . . . . .	4		

The effect of reading disability upon school achievement in bright children is seen in the following:

- 12 children of average intelligence were 1 year retarded.
- 9 children of average intelligence were 2 years retarded.
- 6 children of average intelligence were 3 years retarded.

In addition to the regular survey Miss Jones made a special study of 24 children in Grade I, Cabot School.

Total examined 24; boys, 11; girls, 13.

Number of Tests Given . . . . .	53
Stanford Binet . . . . .	13
Minnesota Pre-school . . . . .	16
Gray's oral reading paragraphs . . . . .	24

The following statistical tables are self-explanatory and deal further with the work of the clinic.

## STATISTICS OF THE OUT-PATIENT DEPARTMENT

October 1, 1932 to September 30, 1933

*Number of Patients*

Total patients (New patients, 752; Old patients, 266) . . . . .			1,018
<i>New Patients:</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Adults . . . . .	198	214	412
Adolescents . . . . .	45	95	140
Children . . . . .	124	76	200
	<hr/>	<hr/>	<hr/>
	367	385	752



## Visits

Total visits of 1,018 patients.	2,877
(New patients, 1,953; Old patients, 924)	
Clinic days	300
Average number of visits per day	9
Average number of visits per day by new patients	6
Average number of visits per day by old patients	3

Number of patients and number of visits per year					
Old patients	Visits	Total	New patients	Visits	Total
117	1	117	400	1	400
49	2	98	147	2	294
33	3	99	61	3	183
11	4	44	44	4	176
11	5	55	25	5	125
8	6	48	16	6	96
9	7	63	12	7	84
3	8	24	7	8	56
1	9	9	12	9	108
3	10	30	3	10	30
4	11	44	7	11	77
3	12	36	2	12	24
4	13	52	1	13	13
2	14	28	1	14	14
1	15	15	2	15	30
1	16	16	2	16	32
1	18	18	4	17	68
1	19	19	1	19	19
1	20	20	1	23	23
2	21	42	3	24	72
1	47	47	1	29	29
<hr/>		<hr/>	<hr/>	<hr/>	<hr/>
266		924	752		1,953

## Problems

a. *Behavior*: misconduct, running away, sex delinquency, disobedience, lying, stealing, exhibitionism, and court charges; 159 cases.

b. *Domestic*: abnormal home situation, establishment of home, marital difficulty, neglect of child; 28 cases.

c. *Educational*: retardation, reading difficulty, speech difficulty, truancy, other school difficulty; 76 cases.

d. *Neuropathic*: difficulty with jaw, "unsettled feeling", swearing, wanderlust, advice and guidance, fear of harming children, fatigue and lack of concentration, listlessness, persecutory ideas, fatigue, alcoholism, auditory hallucinations, tenseness and irritability, emotional instability, confusion and irritability, delusions, abusiveness, obsessions, amnesia, depression, nervousness, sleep difficulty, sleep walking, insomnia and anorexia, grimacing, head twitching, chorea, convulsions, epileptic attacks, question of epilepsy, fainting spells, hysterical spells, dizziness, blurring and feeling of unreality, seizures, spasms, irritability and suspiciousness, lack of concentration, weak spells, question of hysteria, dizziness and headache, stammering, stuttering, excitability, memory lapse, compulsions, self-consciousness, inability to carry on, inferiority feeling, mental condition, self-accusation, peculiar ideas, overactivity, nervousness and excitability, irritability and restlessness, tremors, somatic complaints, impulse to injure others, threatening self and family, speech difficulty, sex difficulty, irritability and nervousness, unresponsiveness and crying, headache and amnesia, excitability and violence, homicidal impulse, fears, paranoid ideas, attempted suicide, suspicions, question of psychosis, feeling of unreality, worry, amnesia, enuresis, temper spells, mistreating children, nail biting and temper tantrums, eating problems, high strung child, lack of self-control, homosexuality, stubborn child, screaming spells, thumb sucking, anxiety, over-religiousness; 347 cases.

*e. Personality problems:* seclusiveness, peculiar personality, lack of interest, maladjustment, distractibility, lack of ambition, mismanagement, judgment defect, bad morals; 13 cases.

*f. Routine examinations:* psychometric testing, adoption, etc.; 77 cases.

*g. Vocational problems:* ability to work, re-establishment in business, vocational advice, ability to care for children; 7 cases.

*h. Miscellaneous:* after-care, hospitalization or other institutionalization, foster home placement, plan for future, senility, advice on operation; 45 cases.

<i>Referred by:</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Boston Psychopathic Hospital . . . . .	16	16	32
Other hospitals . . . . .	68	61	129
Private physicians . . . . .	57	44	101
Social agencies . . . . .	70	178	248
Immigration Department . . . . .	1	—	1
Department of Mental Diseases . . . . .	5	—	5
Court . . . . .	21	5	26
Lawyer . . . . .	4	—	4
Registry of Motor Vehicles . . . . .	1	—	1
School . . . . .	23	10	33
Department of Correction . . . . .	2	—	2
Relatives and friends . . . . .	56	45	101
Own initiative . . . . .	27	21	48
Church . . . . .	1	—	1
Newspaper article . . . . .	10	4	14
Trustees, B. P. H. . . . .	—	1	1
	367	385	752

<i>Diagnoses</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Per Cent of Total</i>
Senile psychosis . . . . .	3	3	6	.8
Psychosis with cerebral arteriosclerosis . . . . .	—	1	1	.1
General paresis . . . . .	3	—	3	.4
Psychosis with other brain or nervous diseases —				
Tabes dorsalis . . . . .	1	—	1	.1
Alcoholic psychosis . . . . .	6	—	6	.8
Psychosis with other somatic diseases . . . . .	—	3	3	.4
Manic-depressive insanity . . . . .	5	11	16	2.2
Involutional melancholia . . . . .	1	2	3	.4
Dementia praecox . . . . .	20	10	30	4.0
Paranoid . . . . .	2	4	6	.8
Psychoneurosis:				
Hysteria . . . . .	5	4	9	1.0
Psychasthenic . . . . .	19	10	29	4.0
Neurasthenic . . . . .	9	11	20	2.5
Others . . . . .	46	44	90	12.0
Psychosis with mental defect . . . . .	1	3	4	.5
Undiagnosed psychosis . . . . .	1	3	4	.5
Diagnoses deferred . . . . .	35	35	70	9.3
Without psychosis . . . . .	4	7	11	1.4
Epilepsy . . . . .	8	16	24	3.1
Alcoholism . . . . .	1	—	1	.1
Acute alcoholism . . . . .	2	—	2	.3
Affective disorder . . . . .	5	17	22	3.0
Psychopathic personality . . . . .	14	7	21	2.6
Normal child . . . . .	10	7	17	2.2
Neurotic child . . . . .	15	11	26	3.4
Behavior problem . . . . .	18	8	26	3.4
Chorea . . . . .	2	1	3	.4
Post-encephalitis . . . . .	3	1	4	.5
Organic disease of central nervous system . . . . .	4	2	6	.9

Congenital lues with mental defect . . . . .	—	1	1	.1
Endocrine . . . . .	1	—	1	.1
Psychopathic personality with mental defect . . . . .	1	—	1	.1
Personality defect . . . . .	6	8	14	2.0
Constitutional psychopathic inferiority . . . . .	2	4	6	.9
Chronic arthritis . . . . .	—	1	1	.1
Marital incompatibility and difficulty . . . . .	1	6	7	1.0
Migraine . . . . .	1	—	1	.1
Sex delinquent . . . . .	1	2	3	.4
Reading difficulty . . . . .	6	1	7	1.0
Speech defect . . . . .	2	1	3	.4
Tabes dorsalis . . . . .	1	—	1	.1
Mongolian . . . . .	1	1	2	.3
Medical problem . . . . .	—	1	1	.1
Sciatica . . . . .	1	—	1	.1
Convulsions — worms . . . . .	1	—	1	.1
Scoliosis . . . . .	—	1	1	.1
Tic . . . . .	1	—	1	.1
Bell's mania . . . . .	—	1	1	.1

## Without psychoses (for intelligence ratings):

## Superior intelligence

Adults . . . . .	3	4	7	.9
Adolescents . . . . .	—	2	2	.3
Children . . . . .	7	1	8	1.0

## Average intelligence:

Adults . . . . .	2	9	11	1.4
Adolescents . . . . .	7	15	22	3.0
Children . . . . .	13	14	27	4.0

## Retarded and borderline intelligence:

Adults . . . . .	5	6	11	1.5
Adolescents . . . . .	12	30	42	6.0
Children . . . . .	28	27	55	7.3

## Feeble-minded:

Adults . . . . .	4	6	10	1.0
Adolescents . . . . .	5	13	18	2.3
Children . . . . .	12	9	21	3.0

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367	385	752	100.0
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	<i>Nationality</i>		<i>Male</i>	<i>Female</i>	<i>Total</i>
African . . . . .			8	14	22
Armenian . . . . .			2	1	3
Dutch . . . . .			1	2	3
English . . . . .			36	38	74
Finnish . . . . .			3	—	3
French . . . . .			7	18	25
German . . . . .			2	6	8
Greek . . . . .			2	5	7
Hebrew . . . . .			53	41	94
Irish . . . . .			61	51	112
Italian . . . . .			40	28	68
Lithuanian . . . . .			3	1	4
Portuguese . . . . .			1	3	4
Scandinavian . . . . .			5	8	13
Scotch . . . . .			7	11	18
Slavonic . . . . .			3	9	12
Spanish . . . . .			—	1	1
Syrian . . . . .			—	3	3
Welsh . . . . .			1	—	1
Mixed race . . . . .			89	79	168
Other race . . . . .			2	1	3



Race unascertained . . . . .	41	65	106
	367	385	752
<i>Disposition</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Boston Psychopathic Hospital . . . . .	45	48	93
Out-patient Department . . . . .	187	141	328
State hospital recommended . . . . .	11	8	19
Wrentham or Waverley recommended . . . . .	5	2	7
Agency report . . . . .	95	170	265
Court report . . . . .	15	12	27
General hospital . . . . .	2	2	4
Relatives . . . . .	4	1	5
Little Wanderer's Home . . . . .	1	—	1
Judge Baker Foundation . . . . .	1	—	1
Lawyer advised . . . . .	—	1	1
Discharged . . . . .	1	—	1
	367	385	752

As in previous years clinic staff meetings for the discussion of particular cases studied in the clinic were held on Monday and Wednesdays throughout the year. These meetings are presided over by the director and are an important factor in stimulating the work of the staff as well as that of the students of medicine, psychology, sociology, and nursing. Executive staff meetings were held from time to time for the discussion of problems of policy and administration.

I wish to record here the wholesome spirit of cooperation of all the staff members of the various departments of the hospital which has often been largely responsible for the successful handling of the many annoying and patience-taxing problems peculiar to a neuropsychiatric clinic.

Respectfully submitted,

OSCAR J. RAEDER,

*Chief of Out-patient Department.*

## REPORT OF THE CHIEF MEDICAL OFFICER

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith submit the medical report for the year.

In general, it may be said that the medical service has continued with little change. We have been quite adequately staffed during the past year, and with the number of volunteer physicians working at the hospital we have been better off in this respect than for many years.

Dr. Solomon has continued to use Ward A for the treatment of cases of neurosyphilis. With the alterations going on at the hospital at the present time, the office of the Chief Executive Officer will probably be added to this ward which should afford him added space and allow more cases to be kept in the hospital for intensive study and treatment, with almost no additional expense.

Ward B has been vacant throughout the year. With the present nursing staff of the hospital, it is not possible to use it and as no funds have been available from private sources for such a purpose the ward has been closed. There are many interesting research projects, particularly some bio-chemical studies of the blood which Dr. d'Elseaux could carry out if it were possible to open up Ward B.

Another suggested change has been to revert to using Wards A and B as admission wards for new patients. To do this would necessitate an increase in our nursing staff and would throw many difficulties in the research work which is at present being carried out.

The general lack of funds has been reflected to some extent in the work of the hospital in that certain pieces of research could not be carried out and also the general medical study and treatment of our cases has been to some degree curtailed.

As has been pointed out before in previous reports, the hospital has a most interesting group of obscure medical conditions as well as a number of such well recognized diseases as diabetes, pernicious anemia, etc. for which very definite and somewhat expensive treatment is necessary. The continued decrease in funds

available for medical care has placed a great strain on the facilities for treatment. Unlike the other state hospitals for mental diseases, this hospital has a very high percentage of physically sick patients. The amount of nursing care, the amount of money needed for drugs and other medical treatments per patient must therefore be necessarily much higher than at the other state hospitals.

The use of our x-ray during the past two months has been quite seriously handicapped by lack of films. Endeavors have been made to curtail the number of x-rays taken and to reduce such expenditures to a minimum. It is doubtful, however, whether it is really economical to reduce expenditures of this sort and whether it does not result in increased costs in other ways.

Considerable more work has been done in physiotherapy this year, particularly the use of ultra violet treatments.

It is hoped to do some special work with colonic irrigations during the coming year, and equipment has been loaned for this purpose. Other hospitals have reported somewhat variable results from these treatments, and it is felt that we should give these methods of treatment for which some claim highly beneficial results a fair and impartial trial.

Recently, Dr. T. A. Marlow has been appointed as an additional consultant in internal medicine and arrangements have been made whereby he makes rounds three mornings a week, seeing cases on which special medical opinion is desired. So far this has worked out most satisfactorily. The clinical staff has been stimulated to added interest in the physical condition of their patients and the thorough check-up of their findings which Dr. Marlow has made, together with the discussion of the cases has been extremely helpful. For many years I have noticed a tendency for the young doctor coming into psychiatry to lay aside his medical training when he approaches a case, and often to become so interested in the psychiatric implications that the physical side is lost sight of. This frequently occurs even among men who have just completed a general medical internship. I feel that Dr. Marlow's work will tend to prevent this from occurring.

When the Veterans Bureau discontinued the use of the Out-patient Department afternoons, it was felt that an afternoon out-patient clinic might be of value. We already have a morning clinic functioning smoothly and efficiently with a part-time staff; therefore, this staff would not be available for the afternoon work. Accordingly an attempt was made to secure voluntary workers for the afternoon clinic, and with this in mind an endeavor was made to concentrate on the intensive treatment of children. Most of the doctors working in the afternoon clinic have been research fellows from the Department of Psychiatry of the Harvard Medical School. During the year nine doctors have worked in the afternoon clinic and 140 cases have been treated. It is not easy to build up such a clinic on a purely voluntary basis but it is felt that there is need for increased use of our out-patient facilities and that an afternoon Out-patient Clinic is desirable. Endeavor will be made to continue this clinic during the coming year.

The number of cases sent into the hospital by the courts has continued to increase steadily. There were 214 cases sent in under Section 100 who spent a total of 2,365 days in the hospital. The approximate cost of caring for these patients would be \$21,500. In addition to this, there were about 60 more cases which were sent in under other provisions of the law, but in which some report was made to the courts. It will thus be seen that the work done for the courts forms a very definite and important part of the work of this hospital and that these patients represent a considerable item in the expense of running the hospital.

The report of the dentist follows: Patients examined, 1,759; patients treated, 920; extractions, 966; fillings, 451; prophylaxis, 217.

Dental radiographs showed 39% of those examined to have infected teeth, and 11% were found to have impacted teeth.

There has been an increase in patients showing pathology of the gum margin. More than the usual number of cases of pyorrhea, gingivitis, and Vincent's infection were observed.

*The X-ray report for the year is given below.* Number of patients.

Month	M.	F.	T.	Month	M.	F.	T.
December . . .	37	22	59	June . . .	30	12	42

January . . . . .	63	10	73	July . . . . .	27	4	31
February . . . . .	26	15	41	August . . . . .	28	18	46
March . . . . .	37	30	67	September . . . . .	33	15	48
April . . . . .	30	8	38	October . . . . .	17	22	39
May . . . . .	38	16	54	November . . . . .	27	12	39

Male, 393; female, 184; total 577. The total number of examinations made was 861.

PHYSIOTHERAPY DEPARTMENT

Number of treatments, 1,756; Ultra-violet light — air cooled and water cooled, 1,540; infra-red with massage, 78; diathermy, 120; fulguration, 4; auto-condensation, 4; sun baths, 10.

Number of patients, 68: Out-patients, male, 7; female, 8. In hospital, male, 28 female, 25.

Respectfully submitted,  
KARL M. BOWMAN,  
Chief Medical Officer.

REPORT OF THE BIOCHEMICAL LABORATORY

To the Medical Director of the Boston Psychopathic Hospital:

The survey of the work of the laboratory, recorded in my annual report last year was incomplete. We have, therefore, in the current year kept a more accurate account of the various types of examinations which have been performed in the laboratory. An attempt has been made to correlate the monthly variation of the work with the admission rate and medical consultation rate. While there is fairly close general correlation between the last two, it will be seen (Table I) that there is no correlation between the admission rate and the laboratory work. The figures given refer only to the routine study of patients and do not include any of the research activities and, consequently, greater concordance would be expected.

TABLE I.  
*Shows Seasonal Variation of Laboratory Work of the Hospital*

Hospital	Hospital Admissions	Clinical Laboratory	Formal Medical Consultations	Chemical Laboratory
December . . . . .	162	638	11	248
January . . . . .	178	646	4	244
February . . . . .	163	520	5	308
March . . . . .	184	544	12	244
April . . . . .	168	618	8	202
May . . . . .	177	584	9	255
June . . . . .	162	600	2	231
July . . . . .	162	559	2	233
August . . . . .	192	558	5	255
September . . . . .	157	611	15	264
October . . . . .	186	665	8	288
November . . . . .	171	612	3	256
Monthly Average . . . . .	172	595	7-8	242

TABLE II  
*Exhibiting Annual Work of Clinical and Chemical Laboratories*

Type of Examination	Individual Items	Aggregate
Blood examinations . . . . .		4,300
Hematological (including cell counts) . . . . .	3,452	
Bleeding and clotting time . . . . .	2	
Icterus index . . . . .	9	
Chemistry . . . . .	837	
Non protein nitrogen . . . . .	366	
Blood sugar . . . . .	381	
Cholesterol . . . . .	5	
Blood chlorides . . . . .	5	
Calcium (serum) . . . . .	5	
Serum bromides . . . . .	33	



Serum potassium . . . . .	3	
Uric acid . . . . .	13	
Serum phosphorus . . . . .	5	
Creatinine . . . . .	6	
Miscellaneous . . . . .	15	
<i>Urine examinations</i> . . . . .		3,204
Routine . . . . .	3,159	
Phenolsulphonephthalein test . . . . .	40	
Mosenthal tests . . . . .	5	
<i>Gastro-intestinal studies</i> . . . . .		27
Stool examinations . . . . .	11	
Gastric analyses . . . . .	12	
Examination of vomitus . . . . .	4	
<i>Smears examined</i> . . . . .		69
For gonococci . . . . .	45	
Sputum for Tuberculosis . . . . .	20	
For Vincent's organisms . . . . .	4	
<i>Basal metabolism determinations</i> . . . . .	136	136
<i>Spinal fluid examinations:</i>		
Complete examinations . . . . .		1,477
From house cases . . . . .	681	
From outside sources . . . . .	289	
Treatment cases . . . . .	263	
Specimens from outside sources for gold sol only . . . . .	244	
<i>Chemical examinations</i> . . . . .		2,064
Total protein . . . . .	1,233	
Sugar . . . . .	819	
Chloride . . . . .	12	

A study of the types of laboratory examinations performed indicates the essential physical normality of our hospital population. The urine and blood examinations are, of course, routine and the spinal fluid examination nearly so. Of all the examinations made only a small proportion are definitely indicative of the search for visceral disease or deranged somatic function.

We were rather surprised at the total number of analyses when we consider that these figures do not include the pathological work, the Wassermann work, the research activities nor the bacteriology. Furthermore, the actual number of tests is larger than indicated because we have grouped all hematological examinations together although, in a large proportion of these, more than a single count was done. Similarly, we have not separated the four items constituting our examination of the spinal fluid.

A very important start in the direction in which I think the laboratory should develop, as mentioned in my last report, has been made in the study of alcoholic patients by Dr. Fleming and Mr. Stotz. Mr. Stotz is a trained chemist working for his doctorate in biochemistry under Professor Folin at the Harvard Medical School. He comes to us on a half-time basis and has developed a satisfactory method for the determination of small amounts of alcohol in blood and spinal fluid and a micro method, of somewhat less accuracy, for the determination of alcohol in minimal amounts of blood. These methods are to be published separately from the extensive and valuable work that he and Dr. Fleming are doing on the fate of ingested alcohol in a variety of patients. Both the blood and spinal fluid are being studied and valuable results are already apparent. Dr. Fleming has organized the work on a very satisfactory basis and his enthusiasm and energy, combined with that of Mr. Stotz, is producing rapid results.

It is my belief that this type of work should be stimulated more than has hitherto been the case. It must again be emphasized that the problems must originate with the clinical staff. Provided one of the many projected rearrangements of laboratory space is carried to fruition, the laboratory will be able to cooperate in a number of such combined researches at a minimal increase in expense. I believe that a wide field is open, if the clinical staff can be interested in problems which, in the last analysis, form an ideal approach to the study of the patient. It is essential that the senior members of the staff should guide their juniors into a more

definite quantitative formulation of psychiatric problems in physiological terms. I have suggested at various times that a study of the hypnotics would be an extremely valuable addition to our knowledge of the drugs and at the risk of repetition, I should again like to say that such a study as to the detailed effect of hypnotics on patients might provide an ingress into the psyche of their patients which is not ordinarily available. A similar study in relation to the antipyretics (analgesics) is entirely feasible and the ground work for this has been already laid by the experimental work of Barbour and others. However, it is necessary if the linkage of psychiatric entities with physiological mechanisms is to be accomplished and if the young psychiatrists who come to us are to be trained in the sense that the internist is trained, that there must be a very vigorous attempt on the part of the clinical staff to formulate their problems of mental disease in such a way that they may be quantitatively linked with physiological mechanisms.

I have repeatedly pointed out to various members of the staff that our practice in regard to sedative drugs is not abreast of the most recent pharmacological data and I am very anxious to see this problem attacked not only from the point of view of the psychiatrist but from the point of view of pharmacodynamic elucidation of the action of these drugs.

It is a pleasure to mention the activity of Dr. d'Elseaux and his assistants and to add my commendation of their work to that of all who have followed it. This will be more fully reported elsewhere.

If the projected plan of studies, such as those that Dr. Fleming is making, is to be broadened in its scope, adequate space for individual workers must be provided for in the projected plans for the enlargement or removal of the laboratory. With such space available, our laboratory can probably suggest and participate in the technical working out of physiological problems though it should be emphasized that this bilateral attack on a problem will be unnecessary when our clinical psychiatrists come to us trained in the physiological sciences as are so many men entering the other medical specialties today.

The staff of the laboratory for the past year has been as follows: Junior chemist—Mildred G. Gray; Special assistant—Elmer H. Stotz; Laboratory internes—Thomas R. Ingham, Robert J. Kinney, Donald T. Hall, H. Stanley Bennett.

Respectfully submitted,

G. PHILIP GRABFIELD, M. D.

Chief Biochemist.

## REPORT OF THE PSYCHOLOGY LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

In view of the recognized inadequacy of the laboratory quarters it may be relevant for future developments to mention particularly certain requirements for efficient functioning. An organization devoted to this class of work requires especially separate rooms which may be small, but must be independently accessible. Deficiency in this respect has always been a drawback in the present layout but one apparently unescapable so long as the quarters remain in their present location.

In the present set of rooms the most immediate single need is space suitable to the use of persons training or carrying on research in psychometrics, for both teaching and study purposes. If changes now in prospect can be carried out, floor space will be fairly adequate to both clinical and teaching demands save for the limitations of arrangement above noted. Among other special needs which it is hoped to meet are suitable office space for the laboratory secretary, and a room of adequate size (as Room 423) which can be arranged essentially for class-teaching purposes.

The Medical School teaching has been altered in that the material formerly given to sections can now be presented in illustrated lectures during the first year and the section work of the third year devoted to demonstrations, to which it is more suited.

In the previous report some attention was paid to teaching problems raised by the affiliate nurses, and it is proposed to make these the principal theme of the present report. There is issued by the National League of Nursing Education as part of a standardized curriculum, the outline of a course in "psychology" of



thirty hours. (The class-room time here available is about half this amount). Aside from some minor questions of relevance in content (it is tied too closely to the academic model) this outline is skilfully prepared, and evinces entire familiarity with the scientific topic itself. Objectives are admirably stated, and it fairly represents a goal to aim for; but it is considerably idealized with reference to the teaching and learning situations that enter into the present purview. It can scarcely be a normal expectation to secure a competent teacher of such a course in the manner suggested. For students to assimilate this content under the available conditions of study, requires a degree of learning capacity to be looked for only in very exceptional nursing schools. The intellectual background is normally below that which can be assumed among college students, to whom, *mutatis mutandis*, the above outline would be fairly suited. It is true that under present general conditions, select hospitals (outside exceptional cases making a requirement of college training) have entering classes that compare in intellectual level not unfavorably with college students (an alpha score of 196 was recently observed in extramural service, and scores of 170 are not a rarity). In the present affiliate groups which may be taken as more representative, the average range is between 120 and 130 alpha, and scores below 100 are occasionally seen. To acquire meaning under such conditions, the topic must be presented much more simply and concretely, and more closely integrated with actual life situations of the students, and not as nurses only, but as adjusting personalities. There are available several texts in psychology intended for nurses' use, and among them there is fair effort to present the topic in terms of nursing experience. But the topics themselves continue organized too much on the scholastic model. To be quite satisfactory, a text must be oriented towards the personality as an adaptive unit, as well as freely utilizing the symbols of nursing experience. It is only by fortunate chance that the ability to produce such a work will be found in a single individual. The text prepared by the present writer, alluded to in the previous report, seems to function satisfactorily from the standpoint of adaptive orientation within the limits of its subject matter, but embodies little of the symbolism of nursing experience. From the point of view of collateral study it is planned to supplement this material with a content of simpler level (Winsor's *Art of Behaviour*). For general teaching purposes texts of "reassurance" psychology such as typically produced by W. B. Pitkin, should be particularly useful.

So much for content that can be studied from the printed word. Classroom sessions should not parallel or duplicate such material, but elucidate and support it. The place of the conventional "lecture" in this function is very limited indeed. Much more information than is likely to be gained in such a way can be transmitted through reference to special circulars, or carefully selected reading. Neither is the intellectual maturity of these students generally suited to the lecture method at its best. A not too formal recitative and discussion procedure is the most effective, at least with groups of the size here concerned. This may be organized in various ways. The writer has obtained good results through requiring students to put in writing, questions which they based on specially assigned reading; the instructor then discusses these questions with the class. After a series of such questions is accumulated it may be presented to a succeeding group of students for checking such questions as they wish discussed. Such procedures split the teaching process into brief units, as is advantageous at the intellectual levels concerned. There is also available to the laboratory, a series of lantern slides dramatizing various psychological points, selected for this purpose from the illustrated press. This material may be presented and discussed in the form of an "illustrated" lecture; but the better procedure is to display the slides and call for their discussion by the class, which has previously studied textual references bearing upon them.

In examinations, the students are apt to prefer a "true-false" test because it saves them the trouble of verbalizing, in which they often feel deficient. But the uniform result has been that much better grasp is displayed in examinations of the "essay" type. The reason for this is that true-false items in this field are difficult to frame so as to be "hole-proof" from the standpoint of the examiner and at the same time intelligible to students at this level. When it is desired to use true-false procedure, the items should always be in the form of direct questions, to be



answered by indicating a printed "yes" or "no". The use of plus or minus signs, and the underlining of "true" or "false", are too complicated.

With regard to clinical and research concerns: The problem of reading difficulties among school children has been given increased attention. A number of cases have been followed in remedial training, which has led to the development of various special devices for teaching and testing. The cases seen have been mainly from ten to fourteen years old; the reading difficulties seen appear mostly functions of "under-analysis"; strephosymbolic difficulties form a group relatively small and distinct. It is expected to discuss this topic more fully in the next report.

A week was spent by the writer as a special lecturer to the Seminar in Culture and Personality conducted through the auspices of the Social Science Research Council, at Yale University, under the direction of Professor Sapir. Seminar meetings and a number of personal conferences were held with this group, consisting of thirteen Fellows representing various European and Oriental cultures. This material formed the basis of a later address before the Psychological Colloquium at Brown University. At the instance of Professor Murchison of Clark University, the writer has undertaken for a forthcoming *Handbook of Social Psychology*, a chapter dealing with the psychopathological concept of regression in its social and individual aspects. This is substantially complete.

Dr. S. J. Beck, whose work with the Rorschach test has been the most conspicuous research undertaking of the laboratory during recent years, was awarded a Rockefeller fellowship to continue this work and has sailed for a year's study in Europe thereunder. He is to return for a subsequent year at this laboratory and is preparing considerable material for publication.

A brief account of Mr. Atwell's work on the Short Alpha test has been published, and the test itself, like its longer congener, is being made available through the Psychological Corporation. In addition to the conditioned reflex project mentioned in the last report, Mr. Goldman has been of assistance to the Beth Israel Hospital in studying the question of mental changes under thyroidectomy in certain cardiac cases. Mr. Goldman also prepared a very useful manual of procedure for examination reports. Miss Jones continues her specialization in the preschool child, which has been greatly helped by the setting up of the attractive "Children's Room" at the northwest corner of the Out-patient Department. Mr. Hylan, student interne, has also given part time to the laboratory with special reference to evaluating the material gathered a few years since, with reference to learning and transfer in mental functions.

Lack of space and other facilities have compelled the turning away of many desirable offers of volunteer assistance in simpler phases of the laboratory's activity. The laboratory has, however, been fortunate in well-qualified help of a technical character given by Miss Frances Dees-Porch, Miss Elizabeth Verveer and Miss Beth Williams.

Various routine services to other institutions, mentioned in previous reports, have been continued.

With the more insightful treatment of psychometric data, greater stress is laid on the configuration, or "profile" of different psychometric functions. Attention was called some years since to the relative preservation of verbal functions in the psychoses, and other workers, especially Babcock, have utilized this function as a point of reference from which to estimate psychotic losses. One of the graduate students of the laboratory is following up this lead with special reference to a refinement of technique.

The only staff change of the year was an exchange of positions between Mr. Atwell and Mr. Goldman, in accordance with previous understandings and wholly without prejudice.

#### PUBLICATIONS

- WELLS, F. L. "Learning Functions in an Obscure Amnesia, with Implications for Re-education." *Journal of General Psychology*, 1933, 8, 173-197.
- ATWELL, C. R. AND WELLS, F. L. "Army Alpha Revised — Short Form." *Personnel Journal*, 1933, 12, October, pp. 160-163.
- BECK, S. J. "Configurational Tendencies in Rorschach Responses." *American Journal of Psychology*, 1933, vol. 45, pp. 433-443.

BECK, S. J. "The Rorschach Method and the Organization of Personality." *American Journal of Orthopsychiatry*, 1933, vol. 3, pp. 361-375.

*Signed Reviews*

WELLS, F. L. *Mental Hygiene*, 12 titles; *American Journal of Orthopsychiatry*, 4 titles; *American Journal of Psychiatry*, 1 title.

ATWELL, C. R. *Mental Hygiene*, 1 title; *American Journal of Orthopsychiatry*, 1 title.

JONES, V. M. *Mental Hygiene*, 1 title.

Respectfully submitted,

F. L. WELLS,

*Head Psychologist.*

## REPORT OF THE NEUROPATHOLOGICAL LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

During the year ending November 30, 1933 the assistant pathologist to the Department of Mental Diseases has continued as pathologist to the hospital, the major portion of the time being taken up with the work of the Department.

In the past year 28 deaths occurred in the Boston Psychopathic Hospital: 19 of these came to autopsy within the hospital and two were released to the medical examiner. This brings the autopsy rate to 75 per cent. Those done by the medical examiner showed death to have been caused in one by fracture of the spine and pelvis with internal injuries. This was the result of a suicidal attempt in which the patient had jumped from a third story window before admission. In the other case released to the medical examiner death was caused by exhaustion associated with delirium tremens and other possible effects of alcohol.

Of the 19 performed by the pathologist or substitute, 11 were males and eight females. Fifteen were over 40 years of age. In 13 an acute infection was present. A subdural hemorrhage was found in one case who died of lobar pneumonia. In another case dying with bronchopneumonia a focal unilateral meningoenephritis was demonstrated. A typical case of subacute combined degeneration of the cord and another with slight changes in the posterior and lateral tracts were found. This latter case showed clinically symptoms suggesting amyotrophic lateral sclerosis.

Dr. Blanche Brine Daly is working in collaboration with Dr. Merrill Moore and the pathologist on a research problem associated with intracranial hemorrhage.

Mr. A. E. Neilsen, the interne in bacteriology, reports the following work done for the hospital during the past year: blood cultures, 17; urine cultures, 4; stool cultures, 2; miscellaneous cultures, 37; smears, 42; dark field examinations, 2. He also assisted at autopsies and in the preparation of tissues for microscopical examination.

Respectfully submitted,

ANNA M. ALLEN,

*Assistant Pathologist to Department of Mental Diseases.*

## DEPARTMENT OF THERAPEUTIC RESEARCH

*To the Medical Director of the Boston Psychopathic Hospital:*

The treatment of syphilis of the central nervous system was started at the Boston Psychopathic Hospital in the year 1913. With the passage of a full 20 years, it seems pertinent to recapitulate briefly the story of the progress of treatment during these two decades.

The stimulation of treatment came from the work of Swift and Ellis in 1912, introducing the intraspinal treatment of neurosyphilis with salvarsanized serum. It may be recalled that the introduction of "salvarsan" led to great hope as to the possibility of a cure for central nervous system syphilis. By 1912 it had become evident that "salvarsan" was not especially efficacious in general paresis, and only valuable in a limited number of cases of tabes dorsalis. Because of the disappointment over the effect of the drug in the treatment of these important neurosyphilitic conditions, Swift and Ellis developed their technique of injecting the blood serum of patients who had received arsphenamin intravenously within a half-hour into the spinal subarachnoid space. Their clinical work consisted to a very large extent in the treatment of cases of tabes dorsalis. It seemed advisable to test the usefulness of the new technique in the treatment of general paresis, and



therefore, Dr. Myerson, Assistant Physician at the hospital at that time, was given the opportunity of investigating the method. A limited number of cases were treated with what seemed to be a modicum of success. Dr. Myerson then left the service at the Psychopathic Hospital, and this treatment lapsed for some months, until the problem of the treatment of syphilitic nervous system disorders was taken up in 1914 by the writer of this section, and has been under his supervision since that time.

Continued use was made of the Swift-Ellis method, with some modifications such as the addition of arsphenamin to the serum, and the utilization of Byrnes' mercurialized serum, as well as the intravenous injection of very large doses of arsphenamin repeated at relatively short intervals.

In the course of two or three years it was found that while this method had success in the treatment of cases of meningo-vascular neurosyphilis and tabes dorsalis, the effect on general paresis was not what one would desire. Good results from the clinical standpoint were obtained in only 10% of the cases, with serological improvement of a marked degree in a smaller percentage. While this was a very unsatisfactory result, it at least was encouraging in that it was much better than any previous attempts at treatment in general use.

One reason for the failure of intraspinal treatment in cases of paresis was that the serum did not reach the portion of the brain involved by the paretic disorder. This statement is based in large part on the experimental work done at the hospital in a study of the circulation of the cerebrospinal fluid. In retrospect, one can see that some of the good results obtained may well have been the result of the febrile reaction produced in the patient by the treatment. To some extent this likewise may explain the good results obtained in the intensive treatment with arsphenamin. In the period under consideration, arsphenamin was not as free from impurities as at the present time, and severe febrile reactions were by no means uncommon. However that may be, in order to improve the results, the introduction of arsphenaminized serum into the ventricles and the cerebral subarachnoid space was utilized as an additional method. This unquestionably was an advance in so far as results, both clinical and serological, were concerned.

Another method that had some vogue during the period under consideration was spinal drainage. According to this technique, an intravenous injection of arsphenamin was given, then the spinal fluid drained out with the intent of inducing more of the drug to get into the nervous system.

In 1919 the Ayer method of cistern injection came into use. In the period following the war, when the work was taken up with renewed enthusiasm, the methods of treating general paresis at the Boston Psychopathic Hospital were: the introduction of serum into the lateral ventricles of the brain; into the basal cistern; into the spinal subarachnoid space; spinal drainage; and large amounts of arsphenamin intravenously. A number of cases were treated by these routes, the type of injections alternated and given at frequent intervals, usually twice a week. While the results were unquestionably better than those obtained either by the simple intravenous injection of the drug, or by the addition of intraspinal injections, the rate of improvement only reached 20% of the cases. The serological results were certainly better than in previous methods of treatment.

There were, however, serious draw-backs to this combination of treatment methods such as a certain amount of danger as well as incapacitation, and pain and discomfort to the patient during treatment periods; a complicated technique; and the time consumption of the staff. Hence, in 1923 there was readiness to try the effect of tryparsamide, at that time a new arsenical preparation originated at the Rockefeller Institute, and already favorably reported upon by Lorenz and his co-workers in Wisconsin. This drug, which is given intravenously, proved to be markedly superior to the methods already mentioned, the response in cases of meningo-vascular neurosyphilis being excellent, the effect on most cases of tabes being also highly satisfactory, and thoroughly good remissions being obtained in more than 30% of the cases of general paresis. The time necessary to give a treatment is very short indeed, and the discomfort to the patient practically nil. The use of tryparsamide, supplemented by arsphenamin, bismuth, and mercury, has almost entirely replaced the other treatment methods.



For many years, beginning in 1889 and continuing through this period, Wagner Von Jauregg, his assistants and some of his students, had been advocating the use of induced fevers in combatting central nervous system syphilis. During the years 1915, 1916, and 1917, rather abortive attempts to produce fevers in the patients at the Boston Psychopathic Hospital had been made with the use of sodium nucleinate and milk protein. Sufficiently high fevers were not obtained, and the results were negligible and hence this was discontinued. In 1917 and 1918 Von Jauregg reported upon the results of inoculation malaria as a therapeutic method. This method, having proved relatively successful in many clinics, was introduced at our clinic in 1925 and has been used continuously since that time with results that are very similar to those obtained with tryparsamide. The combination of malaria and tryparsamide, in some cases, gives better results than either of these methods used independently.

In the search for a more satisfactory substitute for malaria, this clinic introduced the use of sodoku, or rat-bite fever. The results, while quite satisfactory, are certainly no better than malaria, and as this method involved greater difficulties than malaria, it has been discontinued.

When it became evident that fever was of value in the treatment of central nervous system syphilis, search for a satisfactory means of producing fever had been undertaken in various parts of the world. Our introduction of sodoku is one illustration. The use of various vaccines given intravenously had been tried by Von Jauregg prior to the use of malaria, and at our clinic typhoid vaccine is used from time to time. It has also been found that diathermy and radio-thermy are practical methods of producing fevers, the height of which can be definitely controlled. Since 1931 the diathermy method has also been used at our clinic, and during 1933 we introduced the use of the electric blanket, which is simply an enlarged edition of the electric pad in common household use.

In summary, therefore, it may be said that the treatments in use at our clinic at the present time include; first, drug treatment, where the main reliance is put on tryparsamide, but with the use also of arsphenamin, bismuth, and mercury; second, febrile treatment, using for this purpose malaria, typhoid vaccine, diathermy, and the electric blanket.

Early in the course of this work, interest attached itself to the mates and children of the syphilitic patients, and careful painstaking examinations of these close contacts of our patients has been made. In order to be able to do this successfully, and also in order to be able to keep in close touch with treatment patients, and see that they continue treatment for a long period, social service developed in this department and has been invaluable.

With the long uninterrupted period of treatment of patients, and with quite careful records, a great mass of material has been obtained. Due to the efficient social service, many patients have been under care and observation over a number of years, affording an opportunity for the study of the life history of neurosyphilitic diseases.

Naturally, numerous publications by several people have emanated from the clinic. Two books have been published dealing with the general subject and particularly the work of the clinic; namely, "Neurosyphilis" by Southard and Solomon, published in 1917, and "Syphilis of the Innocent" by Solomon and Solomon, published in 1922. At the present time another volume is in preparation based in part upon the work in the clinic, and in part on the general experience in Boston.

The following table summarizes the work of the clinic during the year.

	<i>House</i>	
Number of new patients treated . . . . .	40	
Number old patients admitted for treatment . . . . .	27	
	<i>Out-patient</i>	
Number new patients treated . . . . .	39	
Number old patients treated . . . . .	235	
Total treatment cases . . . . .		341
New cases of syphilis (neural and non-neural) in house but not treated at hospital . . . . .		136

Cases remaining from previous year (neural and non-neural) but not treated at hospital	15
Former house patients returning to neurosyphilis clinic for further diagnostic procedures	11
Mates, children, and siblings of syphilitic patients examined in neurosyphilis clinic	125
Total clinic register	628
Total visits to neurosyphilis out-patient department	4,862
By 39 new patients for treatment) —	
By 235 old patients for treatment)	4,664
By 122 new patients* for examination)	
By 3 old patients* for examination)	198
Total treatments (exclusive of fever therapy)	4,909
Given to house patients	206
Given to out-patients	4,703
Number of treatments given 341 patients (exclusive of fever)	4,909
Acetarsonic . . . . . 90	Neosarsphenamin . . . . . 209
Arsphenamin . . . . . 632	Tryparsamide . . . . . 3,140
Bismuth . . . . . 813	Intraspinal . . . . . 25
Fever therapy	297
Diathermy: 235 treatments given 15 new and 2 old patients.	
Malaria: 32 patients, 25 of whom were new and 7 old patients.	
Typhoid vaccine injections, 30.	
Diagnostic and therapeutic lumbar punctures	1,042
Encephalographies	16

Without going into details concerning the social service work with neurosyphilitic patients and their families in the clinic and in the field, the following brief table will give some idea of the extent of the activities, making the work possible.

Number of interviews at hospital (minus clinic interviews), 281.

Number of visits, 252: Visits to wards, 62; visits outside, 190.

Number of telephone conferences, 1,260: Incoming calls, 436; outgoing calls, 824.

Number of letters written, 1,116.

During the year study has continued as to the comparative value of diathermy and malaria, and during the latter part of the year, of fever produced by the electric blanket. At the same time, endeavor has been made to try to find the optimum method for the individual patient, with the use of a combination of treatment methods. Studies of the metabolism of patients undergoing treatment begun in previous years has been continued to completion.

It is known that malaria has the effect of stimulating the reticulo-endothelial system with the production of various types of histiocytes. Studies are now being made at the hospital on the effect of diathermy on this system, for comparison with the effects produced by malaria.

The staff in this part of the department has remained intact and consists of Dr. S. H. Epstein and Dr. I. Kopp on the medical side, and Mrs. M. H. Solomon and Miss Ruth Epstein in the social service.

As reported in previous years, a research laboratory has been developed under the direction of Dr. Frank C. d'Elseaux. This laboratory has now become fairly well established for the purpose of studying the physiological aspects of patients with mental disorder. Among the pieces of work undertaken, the following may be briefly mentioned.

1. The bio-chemical and physiological effects of diathermy as used in the treatment of neurosyphilis. This work is being prepared for publication at the present time and is believed to contain some highly suggestive leads as to the effect of various factors in the treatment of neurosyphilis and the rationale of this type of treatment. This work is being prosecuted further.

2. Additional data have been obtained concerning the acidity of psychotic patients and the relationship of acidity to certain aspects of psychotic manifestations.

3. Studies of the metabolism of lactic acid are still being made.

\*These are mates, children and siblings of syphilitic patients.

4. Work has continued in the study of the physiology of acid-base balance, respiration, cardio-vascular activity, and oxygen transport, especially in regard to the intracranial tissues.

Dr. d'Elseaux has had as assistants, Miss Mary Peterman and Miss Elsa Marsh, the latter being replaced by Miss Charlotte Rosen.

As in previous years, we wish to acknowledge the whole-hearted cooperation of the members of the hospital staff. This cooperation has not only made the work possible, but also pleasurable.

As in the past, financial assistance has come from several sources, to wit, the Division of Mental Hygiene of the Department of Mental Diseases, and the Department of Psychiatry, Harvard Medical School.

Respectfully submitted

HARRY C. SOLOMON,  
Chief, Dept. Therapeutic Research.

## REPORT OF THE SOCIAL SERVICE DEPARTMENT

*To the Medical Director of the Boston Psychopathic Hospital:*

During the past year there has been only one change in staff. At the end of August, 1933, Miss Doris Stolzberg left to be married. Her place was filled immediately by Miss M. Carmen Burr, who is well-fitted for the position, having been associated for a number of years with the Division for the Examination of Prisoners under the auspices of the Department of Mental Diseases. She spends practically all of her time investigating cases sent here from the courts.

In addition to the regular staff, there was one student from the Smith School of Social Work, Miss Ester Jacobs, who was here for nine months in fulfillment of her field work for the Degree of Master of Science.

The amount of work carried on by the department was greatly increased by the aid of several volunteers. In a specialized field which deals with the subtle problems of personality difficulties and the adjustments of these to normal and abnormal environments, it is hard to use untrained people, as are most volunteers. We were particularly fortunate in having workers of experience who while waiting for paid positions decided to increase their knowledge of psychiatric social work. Mrs. Anna Paine of Boston University, Miss Elizabeth Badger of the New York School of Social Work and Miss Dorothy Dixon of Syracuse University were with us for periods varying from six weeks to several months. Miss Bernice Henderson, formerly clinic manager in the out-patient Department of this hospital, gave us six weeks of her services while on vacation from her regular position.

The total number of cases handled was slightly higher than last year. Again comment has to be made on the court cases. A larger number than usual presented difficult problems in the matter of diagnosis. Patients who had behaved in a very unusual manner in the community, who had been labelled by neighbors as "crazy" frequently acted in a normal fashion while in the hospital or else gave a reasonable, if not a well judged, excuse for their behavior. Extensions of time beyond the ten day period allotted by the court were needed often to make the necessary investigation or to permit of a longer period of observation by the hospital staff. Out of 214 cases sent directly from the courts 30 remained over 10 days each. Ten of these stayed 30 days and over. The average length of stay was 13 days. When it is recalled that the majority of the patients remained in the hospital only 6 days it is clearly seen that this part of the hospital work is important. Despite the long periods of observation only one-third of the cases were found to be committable, the same proportion as last year.

As it is impossible for the small social service department to supervise all of the cases coming to the hospital, the problem of whom to select and how much time to give to each is always an acute one. Shall we allot a certain period to each one and then close the case, whether or not the patient desires or needs assistance so that we may take on new work? Shall we choose the borderline cases which are discharged from the hospital as not psychotic? Shall we concentrate on children? Shall we visit the psychotic patients who have been sent home against advice? Shall we omit the cases of the feeble-minded, etc.? The following cases illustrate some of the difficulties occasioned when an attempt is made to close after a certain



period, to treat on a superficial level and to neglect the other members of the family:—

H.G., was referred to the Out-patient Department in April of 1932 from the Boston City Hospital with the statement that his father had brought him to the pediatric clinic because of a personality change following a head injury of 1928. As no fracture had been found then and as a recent physical examination was negative the child was thought more suitable for this clinic. He was found to be a boy of ten who had gotten along well until the age of seven, when, after his father had given up a grocery store where the boy enjoyed "helping around" and after the accident, he had become friendly with a bad group of boys and begun to steal. At the age of nine after being a persistent truant and after a "breaking and entering" charge, he was sent to the reform school. In a few months he was paroled to a farm home and a year later returned to his own home. Soon he began to "run again with the gang", to steal from the Five and Ten Cent Store and to get constantly into mischief at school.

On psychological tests he was found to have a normal intelligence and psychiatric examination revealed no outstanding pathology. Separation from undesirable companions by placement in a foster home and physical upbuilding were the first recommendations.

An effort was made to have the patient sent to the Ford Boarding School for Boys. Though a child with a reform school record was not usually taken, it was thought an exception might be made for admission in the fall, six months later. Patient was taken to visit the school. He liked the idea of going there. For the summer months, however, he was placed on a farm under the supervision of his parole officer. In the fall he changed his mind. He was so glad to be home after the long vacation that he did not want to leave again. As the Ford School announced at the same time that their new department in which they had expected to place him was not to be opened and as there were no special delinquences, he was allowed to remain at home. As the father was not well, being prone to tuberculosis and having had an operation for cancer of the genito-urinary tract, efforts were spent in urging him to the State Infirmary. He was irritable and cross at home, constantly nagging his tired-out wife and six children, forcing the patient to stay out of the house most of the time he was not in school. In the winter the financial situation became acute; the relief was cut to \$14 a week for a family of eight. The mother spent unwisely, taking the easiest way of a charge account at the store around the corner. The school nurse sent word that the children were under-nourished. Then the patient refused to go to school. He was sulky, "like a clam", would not talk about his behavior. A talk with him and with the teacher resulted in his agreeing to go back to school. The teacher agreed to try harder than ever to be friendly with him. In all of her long professional career he had been one of the most difficult with whom to make a contact. The father did go to the Infirmary but only stayed six weeks, having become disgusted with the doctor who told him he could work if he wanted to as there was nothing the matter with him. The father then took out his "tension" on the mother and the children.

In the spring of 1933, one year after the case first came to the attention of the department, it was decided to institute intensive work; namely, to get the neurasthenic father out of the family and treat him as a separate unit, to raise the standards of the mother's housekeeping (she seemed wilted by her cares and responsibility), to maintain the happy family relationship existing between the mother and the children and the children to one another and to ascertain why the patient appeared so maladjusted. Perhaps this should have been a task for the Family Welfare Society rather than a psychiatric agency but the former had had supervision for six years during the time when the father had active tuberculosis and had given him up as a very difficult person. The mother then had seemed too exhausted by the strain of her husband's long illness to improve her standards of living. To date, after seven more months, the following results have occurred. The father is at a farm home where he has gained much in weight and health. He has been given an opportunity to talk out his personal problems with the social worker and the doctor. The mother was given two weeks vacation in an attractive home where she acquired the energy to tackle the job of rehabilitating her family. In-

creased relief was obtained, the family was moved into a home where there was a sanitary bathroom, and a dining room large enough for the whole family to sit down at once. Underclothes and household goods were acquired, the mother was taken to stores and shown how to buy, instead of being told how and the children were taught budgeting — all of these environmental aids being thought necessary before it would be possible to really treat the patient. Already it has been discovered that he felt he could never eradicate his reform school record. Knowledge that his written record will be destroyed at the age of 21 if there are no further offenses, has helped a good deal. There has been no truancy for months and his report card is excellent showing that he has an urge toward adjustment. One year and seven months of work, many home visits, many school visits, soliciting of funds and clothing, hours of travel, just for the purpose of reconstructing a family so that a child, who according to his tubercular sister "is a funny one, who goes for walks in the country on Sunday, comes back with his hands full of wild flowers, puts these into water, will not let anyone touch them, guards them like valuables" may have an opportunity to forget his tragic past and may become a useful citizen. The case is far from closed; the father may have to return home when there is no more board money, the mother's spurt of energy may disappear but we hope to continue until the patient may stand on his own feet.

F.B., a girl of 19, was referred to the clinic by her mother in the hope that she might be sent to the school for the feeble-minded. The mother had always been ashamed of her, wished she had died at birth instead of existing with a crippled left arm due to birth injury. The brothers and sister had been successful. Patient was found to have an intelligence quotient of 84%. It was recommended that her attitudes toward herself be rebuilt and her confidence restored in the hope that she could gain the respect of her family. For one year efforts were made to change her habits of idleness through tie up with settlement houses, dancing lessons, elocution lessons, etc. The patient never could adjust to the fact that she was not capable intellectually of work of high order. She always refused the work found for her as being too menial. She would not accept anything which necessitated much use of her crippled hand. The mother is still disgusted with her. The manipulation of environment having failed, an attempt will be made during the following year to understand more of the girl's emotional difficulties. She has to live in the community being too high grade for institutional placement. She considers the hospital workers her only friends and she is not yet ready to adjust by herself.

During the past year there have been several innovations. We have always been troubled because there was not a large enough staff to follow routinely all of the patients discharged from the hospital. During the past few months there have been fortnightly staff meetings with each service, male and female, to review the cases which had been discharged during the previous two weeks, in order to see which might benefit by supervision in the community, which might be referred to the Out-patient Department, which could be followed by the doctors themselves and which needed no supervision. To date there have been eight conferences; 77 cases have been discussed; 36 have already been visited by the social service department. Some were found to be very uncooperative; they wished to forget all about the hospital experiences. Their memories were so unpleasant that they could not believe that the social worker really wanted to help. As in treatment the point is stressed that therapy will be of little value unless the patient desires help, so it was decided, after the social worker had made an earnest effort to show the patient and his relatives the resources available, to discontinue visiting the patient unless assistance was sought. The conferences have been of value as a means of acquainting the hospital staff with the fact that the Social Service Department had functions other than those of investigation, as is so apt to be the impression gained by the staff members who are here for just short periods of time. As the present progress of all the cases is presented to the group, each physician has an opportunity to become acquainted with a larger group of cases which are under long-time treatment than if he were hearing only about his own cases from the individual social worker.

Before the above mentioned plan was started, the services of one of the volunteer workers was offered the physicians for the follow-up of any cases about which



they desired special information as to present adjustment, or more detailed history than had been obtained at the time of admission. Twenty-five men and 10 women were visited. No effort has been made by this worker to carry out a treatment program. If such was needed the case was referred to a regular worker.

The teaching work has been considerably extended. A lecture on social service has been given to each group of affiliated nurses during its three months training period and to each group of Harvard Medical students during its 11 days period. The material given to the latter groups should be coordinated with what is being taught by the social service departments in the other hospitals where the students obtain their clinical experience, but as the students do not progress from one hospital to another in the same order, this arrangement is difficult. A committee on the Teaching of the Social Aspects of Medicine to Medical Students has been created under the auspices of the New England Association of Hospital Social Workers.

When the afternoon clinic for children was started, November, 1932 it was hoped that intensive social service supervision might be given to all of the cases needing it. While only about 30 of the 140 cases are now known to the social service department it is felt that good care has been given the whole group as 66 others are under the care of outside agencies and the remainder are under the supervision of the clinic. All of the cases received more time than it is possible to give in the rushed morning clinic. It is interesting to note that in contrast with the morning clinic of 1932, 41% of the new cases as against 24% came in more than twice and 46% of the old cases in contrast to 34%. 10% of the total referrals in contrast to 4% in the 1932 clinic were from schools and 10% as against 4% from the courts.

In some instances where the environmental situation is not pathological, namely, where there is no poverty to account for stealing on the part of the patient, no poverty to increase the tension and worry on the part of the parents, no poverty to necessitate the mother working, the father being dead, and where the best known methods of child training have been carried out both by the parents and the social worker and the delinquency has continued, it has been necessary to adopt a new method of treatment. It has long been recognized that the treatment of parents brings about improvement in the children, emotional problems and attitudes of the parents being reflected in the children. In order for the parent to receive this treatment it has been necessary to establish a patient-doctor relationship. As the doctor has the treatment of the child as his province and as he feels it will hinder his relationship to the child if the latter thinks that all he says and does will be related to the parent by the doctor, it is essential to use another therapist. The social worker has been chosen for this role. She sees the key parent, either father or mother, several times a week at the hospital and allows the latter to talk out his or her problems, receiving no advice or counselling, using the worker as a screen upon which to project his thoughts until enough material has appeared to give the parent insight into his own difficulties. At the same time his prejudices, dislikes, thwartings and attitudes acquired in childhood are relived. This "ventilation" frequently causes a change in the parent, which permits of better behavior on the part of the child. As this process, which is called "Attitude Therapy" takes a long time, at least a year, often two, many cases cannot be so handled. In many instances ordinary case work methods are sufficient. To date one such case has been handled by this department with excellent results.

Again a small sum of money was received from the Junior League of Boston, in place of Christmas greens, which has helped in emergency situations.

The partial use of an automobile which was given to the hospital in the spring of 1933 has greatly facilitated the work of the department.

As in previous years, excellent cooperation has been given this department by all members of the staff.

Respectfully submitted,

ESTHER C. COOK,

*Head Social Worker.*



## SOCIAL SERVICE STATISTICS

## I. Numerical Summary:

	Male		Female		
	Children	Adults	Children	Adults	
New cases . . . . .	114	296	66	233	709
Renewed from previous year . . . . .	53	30	31	93	207
Continued from previous year . . . . .	20	41	5	8	74

Total cases carried during year . . . . .					990
Closed during year . . . . .	135	250	78	207	670
Continued to following year . . . . .	52	117	24	127	320

## II. Sources of new cases: 709. House, 443; out-patient, 266.

Sources of 74 continued cases: house, 21; out-patient 53.

Sources of 207 renewed cases: House, 68; Out-patient, 139.

## III. Analysis of work on all cases:

Number of histories from single sources . . . . .	81
Number of investigations from multiple sources . . . . .	316

Number of visits pertaining to the supervision of patients in the community, either ex-house cases or out-patient cases (does not include visits made during course of investigation) . . . . .	1248
Number of visits to patients on wards . . . . .	278

Unclassified:

Steering for agencies, interpreters, sending applications to feeble-minded schools, etc. . . . .	96
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## IV. Outstanding social problems:

Diseases: Mental, 600; physical, 201.

Personality problems, including temperament, vacillating interests, instability, etc. . . . .	367
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Legal problems, including larceny, assault, forgery, etc. . . . .	248
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Sex problems . . . . .	162
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Environmental:

Financial difficulties . . . . .	167
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Employment . . . . .	92
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Marital difficulties . . . . .	149
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Unsuitable surroundings, broken home, friction in the home, inadequate physical surroundings, immoral parents . . . . .	278
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School problems . . . . .	124
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## V. Outstanding social treatment:

Investigation of court cases with frequent special reporting to probation officers: Regular court cases, 214; temporary case and police cases, 60.

Other investigations, <i>i.e.</i> , no informants to come to the hospital, contradictory statements, etc. . . . .	123
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Special visits to discharged home cases with advice and counsel . . . . .	65
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Other House cases under supervision . . . . .	247
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Total house cases . . . . .	532
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Total out-patient cases . . . . .	458
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Contracts not numerically recorded:

Consultation with agencies — more than ever this year agencies have discussed with the social service staff their problems which had psychiatric import. Cases of patients who were in the hospital many years ago have been reviewed with the department by outside agencies.

Placements in private schools, camps, cooperative workshops and positions.

Educational contacts with schools.

Soliciting of clothing, household goods, money for vacations, convalescent homes.

Maintenance of a resource file.

## VI. Miscellaneous:

Expense account . . . . .	\$382.33
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## REPORT OF THE PRINCIPAL OF SCHOOL OF NURSING

*To the Medical Director of the Boston Psychopathic Hospital.*

I herewith present the annual report of the nursing department for the year ending November 30, 1933.

*Census of the nursing service* — Graduate nurses, 12; student nurses, 14; supervisors (male), 3; hydrotherapists, 2; female attendants, 8; male attendants, 13. Total, 52.

There have been two changes in the graduate nursing staff during the past year. Mrs. Mary Byrne, head nurses, resigned; Miss Parise Padis was appointed. Miss Padis is a graduate of Newton Hospital and took the affiliative course here in 1931.

During the year we received 55 students and 2 post-graduate nurses for the three months course in psychiatric nursing. Miss Theresa Hammond, a post-graduate student from Ellis Hospital, Schenectady, New York, and Miss Dorothy Sullivan an affiliate nurses from Cambridge Hospital were obliged to leave their first month here, due to illness, and were unable to complete the course.

Eight groups of student nurses are received here each year for three months affiliation in mental nursing. We receive a group of nurses each month for two consecutive months leaving one month out of three in which we do not receive new students. This overlapping is necessary in order to have a number of students with some experience in the mental work, present on the wards when we receive new students.

We are continually preparing nurses in theory and by demonstrations in order that they may have a working knowledge of mental nursing. Although they come to us from general hospitals with two or more years experience in surgical and medical nursing, yet intelligent handling of mentally ill patients requires a great deal of preparation in theory and demonstrations by the instructor of nurses, ward supervisors, and the medical staff.

In a hospital of this type a four months affiliation would be preferable; three months theory and demonstrations and one month of practice on the wards free of classes, with attendance at staff conference and ward rounds only. The instructor of nurses takes each new group for morning lectures and demonstrations for a month, while the entire student body attend afternoon lectures given by the physicians for three months. The afternoon lectures with all the students off the wards at one time makes it rather difficult at times to cover the wards and carry on the regular routine of admissions, etc. The four months affiliation would relieve this condition. The student body is very much in favor of a longer affiliation as it would give them more experience in the mental work. The writer intends to interview the superintendents of our affiliating schools to see if this can possibly be arranged.

As in previous annual reports, I must again emphasize the great need of a larger nurses home, which would enable us to receive more students or post-graduate nurses. In viewing the census of the school it would seem as though we had an ample supply of nurses in proportion to patients. However, a closer study of the subject would make it clear that this is not so. Our hospital day here is 14 hours; night, 10 hours. Graduate nurses and attendants work 10 hours a day with a day off each week — students nurses 8 hours a day, 2 hours off for classes and a half day off on Sundays. In our routine time schedule with days off, time off, classes, lectures, vacations and sickness, there are times when it seems almost impossible to supply nurses to escort patients to the numerous clinics, and assist physicians who are doing extensive research work with patients, and yet not lose sight of the fact that there ought to be enough nurses on the wards to meet emergencies and also to give the patients the best possible care.

The number of patients given continuous baths or wet sheet pack treatments as seen in the following hydrotherapy report is relatively small compared with the number of excited patients admitted during the year. Many of these cases were physically unfit to be given hydrotherapy treatment, yet were too excited to stay in bed, and too ill to be allowed to roam at will. They frequently became more excited or developed friction sores when placed in restraint. It was often necessary to hold these patients in bed for hours at a time; this constituted one of our greatest nursing problems, as it was not always advisable to keep these patients quiet by the use of hypnotics.

*Hydrotherapy* — tonic baths, number of patients, 244; foot baths, 771; salt glows, 843; electric light baths, 543; saline baths, 131; sitz baths, 130; hot and cold to spine, 188; hot and cold to abdomen, 13; tub shampoos, 541; head shampoos, 657; needle sprays, 3,490; fan douches, 3,490; jet douches, 1,399; rain douches, 458; scotch douches, 62; massage, 45. Continuous baths, number of patients, 372; number of baths, 1,333; number of hours, 9,031. Wet sheet packs; number of patients, 34; number of packs, 56; number of hours, 157. Out-patient Department — number of patients, 43; foot baths, 31; salt glows, 42; electric light baths, 374; saline baths, 6; sitz baths, 4; wet mitt friction, 9; needle sprays, 522; fan douches, 522; jet douches, 398; scotch douches, 28; massage, 69. Instructions in wet sheet packs, continuous baths and tonic baths were given to 54 student nurses and 1 post-graduate nurse. Number of lessons, 320; number of hours, 386. Instructions in wet sheet packs and continuous baths were given to 14 male attendants. Number of lessons 77, number of hours, 116.

Respectfully submitted,

MARY FITZGERALD, R. N.,

*Principal of School of Nursing.*

# REPORT OF THE DEPARTMENT OF OCCUPATIONAL THERAPY To the Medical Director of the Boston Psychopathic Hospital:

As in previous years, the Occupational Therapy Department has provided work for all house patients who are able to come to the work rooms. In addition, the assistant does valuable preliminary work with patients on the admitting ward.

The average patient accepts the work as part of the hospital routine and often develops a sincere interest in it. Even if he remains outwardly indifferent, he unconsciously absorbs something of benefit. The former type of patient occasionally shows a continued interest by returning to work after he has left the hospital. As for the latter, we can only hope that we have given him an added incentive to normal interests.

For several months in the year we continue to have with us a number of students for a month's training, from the Boston School of Occupational Therapy. The association is of mutual benefit and we are glad to have them as many months as possible.

The affiliated nurses also come to us for a short period during their stay, and have a chance to gain some insight into the principles of the work.

The recreational side of our program has consisted of holiday dances in the Assembly Hall, which have been attended by a considerable number of patients and employees. At such times the making of decorations varies the routine work.

In the spring we also made a puppet for the Marionette Show arranged by the Massachusetts Association for Occupational Therapy, in connection with the Annual Meeting of the American Psychiatric Association in Boston.

At the annual conference of the Massachusetts Association for Occupational Therapy, on November 24, examples of our work were on exhibition, and the director served on the nominating and publications committees.

The personnel of the department is unchanged, Miss Maynard continuing as an able and loyal assistant.

The statistics of the department are as follows:

Attendance — women, average attendance, 15; total enrollment, 659.

Attendance — men, average attendance, 22; total enrollment, 987.

Articles made, 1,683. Forms printed, 19,650.

Respectfully submitted,

ALICE E. WAITE,

*Head Occupational Therapist.*

## PUBLICATIONS FROM THE CLINICAL SERVICE AND LABORATORIES

Atwell, C. R. and Wells, F. L. — Army Alpha Revised — Short Form. *Personnel Journal*, 1933, 12, October, pp. 160-163.

Beck, S. J. — Configurational Tendencies in Rorschach Responses. *American Journal of Psychology*, 1933, Vol. 45, pp. 433-443.

Beck, S. J. — The Rorschach Method and the Organization of Personality *American Journal of Orthopsychiatry*, 1933, Vol. 3, pp. 361-375.



Bowman, K. M. — Progress in Psychiatry for 1932. *New England Journal of Medicine*, Vol. 209, No. 9, pp. 451-453, August 31, 1933.

Bowman, K. M. and Kasanin, J. — Constitutional Schizophrenia. To appear in *American Journal of Psychiatry*.

Campbell, C. M. — The General Practitioner's Approach to His Nervous or Mental Patients. *British Medical Journal*, December 31, 1932, pp. 1186-1189.

Campbell, C. M. — Towards Mental Health. Cambridge, *Harvard University Press*, 1933.

d'Elseaux, F. C. — Use of Carbon Dioxide Mixtures in Stupors Occurring in Psychoses. *Archives of Neurology and Psychiatry*, Vol. 29, pp. 213-230, February 1933.

Epstein, S. H. and Lott, George — Lumbar Punctures in Psychothic Patients. *Journal of Nervous and Mental Disease*, Vol. 76, No. 6, December 1932.

Epstein, S. H. and Hanflig, S. S. — A New Apparatus for Encephalography. *American Journal of Roentgenology*, Vol. 29, No. 5, May 1933.

Epstein, S. H. — Fever Therapy in Neurosyphilis. *Bulletin of Massachusetts Society for Social Hygiene*, Vol. 3, No. 7, October 1933.

Merritt, H. H., Moore, Merrill and Solomon, H. C. — The Iron Reaction in Parietic Neurosyphilis. *American Journal of Syphilis*, Vol. 17, p. 3, July 1933.

Merritt, H. H. and Moore, Merrill — The Argyll Robertson Pupil. *Archives of Neurology and Psychiatry*, Vol. 30, p. 357, August 1933.

Solomon, H. C., Epstein, S. H. and Berk, A. — The Differential Effects of Arspenamine and Tryparsamide. *American Journal of Syphilis*, Vol. 17, pp. 45-52, January, 1933.

Solomon, H. C. — A Brief Description of Psychiatric Conditions in Massachusetts. *American Journal of Psychiatry*, Vol. 12, No. 5, pp. 1049-1064, March 1933.

Wells, F. L. — Learning Functions in an Obscure Amnesia, with Implications for Re-education. *Journal of General Psychology*, Vol. 8, pp. 173-197, 1933.

## VALUATION

November 30, 1933

REAL ESTATE	
Land, 2 acres . . . . .	\$59,300.00
Buildings . . . . .	511,380.21
	<hr/>
	\$570,680.21
PERSONAL PROPERTY	
Travel, transportation and office expenses . . . . .	\$6,470.33
Food . . . . .	1,686.73
Clothing and materials . . . . .	1,877.58
Furnishings and household supplies . . . . .	25,067.47
Medical and general care . . . . .	20,726.04
Heat and other plant operation . . . . .	795.92
Farm . . . . .	—
Garage and grounds . . . . .	357.15
Repairs . . . . .	1,389.34
	<hr/>
	\$58,370.56
SUMMARY	
Real estate . . . . .	\$570,680.21
Personal property . . . . .	58,370.56
	<hr/>
	\$629,050.77

## FINANCIAL REPORT

To the Department of Mental Diseases:

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1933.

STATEMENT OF EARNINGS	
Board of patients . . . . .	\$8,623.94
Personal services:	
Reimbursement from Board of Retirement . . . . .	83.61
Sales:	
Travel, transportation and office expenses . . . . .	\$ .75
Food . . . . .	24.65
Furniture and household supplies . . . . .	24.90
Repairs ordinary . . . . .	11.56
Repairs and renewals . . . . .	47.70
	<hr/>
Total sales . . . . .	109.56

Miscellaneous:		
Interest on bank balances	\$74.52	
Sundries	488.00	
Total, miscellaneous		562.52
Total earnings for the year		\$9,379.63
Balance from previous year, brought forward		\$6,957.63
Appropriation, current year		209,287.50
Total		\$216,245.13
Expenditures as follows:		
1. Personal services	\$148,659.28	
2. Food	20,805.32	
3. Medical and general care	14,429.57	
4. Religious instruction	1,123.30	
5. Farm		
6. Heat and other plant operation	10,568.96	
7. Travel, transportation and office expenses	4,442.28	
8. Garage and grounds	211.96	
9. Clothing and materials	1,045.19	
10. Furnishings and household supplies	3,893.69	
11. Repairs ordinary	2,744.86	
12. Repairs and renewals	3,738.51	
Total maintenance expenditures		\$211,662.92
Balance of maintenance appropriation, Nov. 30, 1933		\$4,582.21

## PER CAPITA

During the year the average number of patients has been, 73.90.

Total cost of maintenance, \$211,662.92.

Equal to a weekly per capita cost of (52 weeks to year), \$55.0803.

Total receipts for the year, \$9,379.63.

Equal to a weekly per capita of \$2.4408.

Total net cost of maintenance for year (Total maintenance less total receipts), \$202,283.29.

Net weekly per capita, \$52.6395.

Respectfully submitted,

ELIZABETH LIBBER SHORE,

Treasurer.

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION PRESCRIBED  
BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

Data correct at end of hospital year November 30, 1933

1. Date of opening as a hospital for mental diseases, June 26, 1912.

2. Type of hospital: State.

3. Hospital plant:

Value of hospital property:

Real estate, including buildings

Personal property

\$570,680.21

58,370.56

Total

Total acreage of hospital property owned, 2 acres.

Total acreage under cultivation during previous year

\$629,050.77

4. Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents	1	—	1	1	—	1
Assistant physicians	12	2	14	1	—	1
Medical internes	3	—	3	—	—	—
Total physicians	16	2	18	2	—	2
Resident dentists	1	—	1	—	—	—
Graduate nurses	2	12	14	—	1	1
Other nurses and attendants	16	17	33	—	—	—
Occupational therapists	—	2	2	—	—	—
Social workers	—	6	6	—	—	—
All other officers and employees	25	44	69	—	—	—
Total officers and employees	60	83	143	2	1	3

NOTE: — The following items, 5-10 inclusive, are for the year ended September 30, 1933.

5. Census of patient population at end of year:

	Actually in Hospital			Absent from Hospital but Still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane . . . . .	31	27	58	17	18	35
Mental defectives . . . . .	1	—	1	—	—	—
Alcoholics . . . . .	1	—	1	—	—	—
All other cases . . . . .	8	9	17	1	4	5
Total . . . . .	41	36	77	18	22	40
OTHER RACES:						
Insane . . . . .	2	1	3	3	—	3
Total . . . . .	2	1	3	3	—	3
Grand Total . . . . .	43	37	80	21	22	43

	Male	Female	Total
6. Patients under treatment in occupational-therapy classes, including physical training, on date of report . . . . .	27	14	41
7. Other patients employed in general work of hospital on date of report . . . . .	2	2	4
8. Average daily number of all patients actually in hospital during year . . . . .	40.51	33.14	73.65
9. Voluntary patients admitted during year . . . . .	22	19	41
10. Persons given advice or treatment in out-patient clinics during year . . . . .	497	509	1,006

TABLE 2. *Financial Statement*

See Treasurer's report for data requested under this table.

NOTE: — The following tables, 3-19, inclusive, are for the statistical year ended September 30, 1933.



TABLE 3. Movement of Patient Population

	Regular Court Commitment (Insane)			Voluntary			Temporary Care			Observation			Total on Books		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of Institution September 30, 1932 . . . . .	33	39	72	10	5	15	11	13	24	12	4	16	66	61	127
Admissions during year:															
First Admissions . . . . .	67	39	106	14	10	24	688	606	1,294	138	42	180	907	697	1,604
Readmissions . . . . .	3	6	9	8	9	17	166	160	326	37	24	61	214	199	413
Transfers from other hospitals for mental diseases . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	2	2
Total received during year . . . . .	70	47	117	22	19	41	854	766	1,620	175	66	241	1,121	898	2,019
Total on books during year . . . . .	103	86	189	32	24	56	865	779	1,644	187	70	257	1,187	959	2,146
Discharged from books during year:															
As recovered . . . . .	1	1	2	2	3	5	50	13	63	10	1	11	63	18	81
As improved . . . . .	15	21	36	15	4	19	180	247	427	18	14	32	228	286	514
As unimproved . . . . .	4	2	6	2	4	6	399	379	778	50	20	70	455	405	860
As without psychosis. . . . .	-	-	-	10	9	19	209	115	324	98	29	127	317	153	470
Transferred to other hospitals for mental diseases . . . . .	43	24	67	-	-	-	-	-	-	-	-	-	43	24	67
Died during year . . . . .	3	6	9	1	-	1	12	8	20	1	-	1	17	14	31
Total discharged, transferred and died during year . . . . .	66	54	120	30	20	50	850	762	1,612	177	64	241	1,123	900	2,023
Insane patients remaining on books of hospital at end of hospital year:															
In hospital . . . . .	16	10	26	2	4	6	15	17	32	10	6	16	43	37	80
On parole or otherwise absent . . . . .	21	22	43	-	-	-	-	-	-	-	-	-	21	22	43
Total . . . . .	37	32	69	2	4	6	15	17	32	10	6	16	64	59	123

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States . . . . .	44	28	72	28	28	23	16	15	14
Canada <sup>1</sup> . . . . .	6	2	8	7	13	6	7	8	6
England . . . . .	—	—	—	1	—	—	—	—	—
France . . . . .	1	—	1	1	1	1	—	—	—
Germany . . . . .	2	—	2	2	2	2	—	—	—
Greece . . . . .	1	1	2	1	1	1	1	1	1
Ireland . . . . .	3	3	6	10	7	6	5	6	5
Italy . . . . .	5	2	7	7	7	7	3	3	3
Poland . . . . .	—	1	1	—	—	—	1	1	1
Russia . . . . .	4	1	5	6	6	6	3	3	3
Scotland . . . . .	—	—	—	3	1	1	—	—	—
Sweden . . . . .	—	—	—	—	—	—	1	—	—
West Indies <sup>2</sup> . . . . .	—	1	1	—	—	—	1	1	1
Other countries . . . . .	1	—	1	1	1	1	—	—	—
Uncertain . . . . .	—	—	—	—	—	—	1	1	1
Total . . . . .	67	39	106	67	67	54	39	39	35

<sup>1</sup>Includes Newfoundland.<sup>2</sup>Except Cuba and Porto Rico.

TABLE 4-A. Age of First Admissions Classified with Reference to Nativity and Length of Residence in the United States of the Foreign Born

AGE GROUPS	Aggregate			NATIVE BORN				FOREIGN BORN																				
	Total			PARENTAGE			Total	TIME IN U. S. BEFORE ADMISSION																				
				Native	Foreign	Mixed		Unascertained	5-9 years	10-14 years	15 years and over																	
	M. F. T.	M. F. T.	M. F. T.									M. F. T.																
Under 15 years	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	
15-19 years	3	2	5	2	2	4	1	3	4	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	1	2	
20-24 years	5	7	12	2	3	5	1	3	4	1	1	2	1	1	3	1	1	2	1	1	1	1	1	1	1	1	2	
25-29 years	6	8	14	2	4	6	2	4	6	1	2	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	2	
30-34 years	4	6	10	2	2	4	2	3	5	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	
35-39 years	15	3	18	11	2	13	2	1	3	4	5	1	6	1	5	1	1	2	1	1	1	1	1	1	1	1	2	
40-44 years	13	5	18	7	2	9	4	1	4	1	2	2	4	1	3	1	1	2	1	1	1	1	1	1	1	1	2	
45-49 years	6	2	8	5	2	7	4	1	4	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
50-54 years	7	2	9	4	1	5	4	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
55-59 years	5	3	8	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
60-64 years	2	-	2	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
Total	67	39	106	44	28	72	23	14	37	9	8	17	12	5	17	-	1	1	23	11	34	2	-	2	1	2	3	20
																												9



TABLE 5. *Citizenship of First Admissions*

	Male	Female	Total
Citizens by birth . . . . .	44	28	72
Citizens by naturalization . . . . .	18	6	24
Aliens . . . . .	5	3	8
Citizenship unascertained . . . . .	—	2	2
Total . . . . .	67	39	106

TABLE 6. *Psychoses of First Admissions*

PSYCHOSES	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses . . . . .				1	—	1
2. Senile psychoses . . . . .				—	—	—
3. Psychoses with cerebral arteriosclerosis . . . . .				1	1	2
4. General paralysis . . . . .				33	1	34
5. Psychoses with cerebral syphilis . . . . .				1	—	1
6. Psychoses with Huntington's chorea . . . . .				—	—	—
7. Psychoses with brain tumor . . . . .				—	—	—
8. Psychoses with other brain or nervous diseases, other diseases . . . . .				3	5	8
9. Alcoholic psychoses . . . . .				—	—	—
10. Psychoses due to drugs and other exogenous toxins, total . . . . .				2	—	2
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined . . . . .	1	—	1			
Other exogenous toxins . . . . .	1	—	1			
11. Psychoses with pellagra . . . . .				3	9	12
12. Psychoses with other somatic diseases . . . . .						
Delirium of unknown origin . . . . .	2	—	2			
Cardio-renal diseases . . . . .	—	2	2			
Other diseases or conditions . . . . .	1	7	8			
13. Manic-depressive psychoses, total . . . . .				3	7	10
Manic type . . . . .	2	3	5			
Depressive type . . . . .	—	3	3			
Other types . . . . .	1	1	2			
14. Involution melancholia . . . . .				1	—	1
15. Dementia praecox (schizophrenia) . . . . .				17	6	23
16. Paranoia and paranoid conditions . . . . .				—	—	—
17. Epileptic psychoses . . . . .				—	—	—
18. Psychoneuroses and neuroses . . . . .				—	—	—
19. Psychoses with psychopathic personality . . . . .				—	—	—
20. Psychoses with mental deficiency . . . . .				—	—	—
21. Undiagnosed psychoses . . . . .				2	10	12
22. Without psychoses . . . . .				—	—	—
Total . . . . .				67	39	106

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			Traumatic			With cerebral arterio-sclerosis			General paralysis			With cerebral syphilis			With other brain or nervous diseases		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black) . . . . .	4	1	5	—	—	—	—	—	—	4	—	4	—	—	—	—	1	1
English . . . . .	14	10	24	—	—	—	—	—	—	9	—	9	—	—	—	1	3	4
French . . . . .	3	2	5	—	—	—	—	—	—	2	—	2	—	—	—	—	—	—
German . . . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek . . . . .	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew . . . . .	5	3	8	—	—	—	—	—	—	2	—	2	—	—	—	1	1	2
Irish . . . . .	16	8	24	1	—	1	1	—	1	6	—	6	1	—	1	—	—	—
Italian <sup>1</sup> . . . . .	7	4	11	—	—	—	—	—	—	4	—	4	—	—	—	—	—	—
Lithuanian . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch . . . . .	4	1	5	—	—	—	1	1	—	1	—	1	—	—	—	—	—	—
Slavonic <sup>2</sup> . . . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Mixed . . . . .	9	8	17	—	—	—	—	—	—	5	1	6	—	—	—	—	—	—
Race unascertained . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	67	39	106	1	—	1	1	1	2	33	1	34	1	—	1	3	5	8

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses* — Continued

RACE	Due to drugs and other exogenous toxins			With other somatic diseases			Manic-depressive			Involution melancholia			Dementia praecox			Undiagnosed psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	1	—	1	—	1	1	—	3	3	—	—	—	2	1	3	1	2	—
French	—	—	—	—	—	—	—	1	1	—	—	—	1	—	1	—	1	—
German	—	—	—	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	1	—	—
Hebrew	—	—	—	—	1	1	1	1	2	1	—	1	—	—	—	—	—	—
Irish	1	—	1	—	2	2	—	1	1	—	—	—	6	4	10	—	1	—
Italian <sup>1</sup>	—	—	—	1	2	3	—	—	—	—	—	—	2	—	2	—	2	—
Lithuanian	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3	—	—	—
Slavonic <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	—	—	—	2	2	1	1	2	—	—	—	3	—	3	—	4	—
Race unascertained	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Total	2	—	2	3	9	12	3	7	10	1	—	1	17	6	23	2	10	1

<sup>1</sup>Includes "North" and "South."<sup>2</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	—	1	—	—	—	—	—	—	1	—	—
2. Senile	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	1	1	2	—	—	—	—	—	—	—	—	—
4. General paralysis	33	1	34	—	—	—	1	—	1	—	—	—
5. With cerebral syphilis	1	—	1	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	3	5	8	—	1	1	—	—	—	—	—	—
9. Alcoholic	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins	2	—	2	1	—	1	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	3	9	12	—	—	—	—	—	—	—	1	—
13. Manic-depressive	3	7	10	—	—	—	2	1	3	—	1	—
14. Involution melancholia	1	—	1	—	—	—	—	—	—	—	—	—
15. Dementia praecox	17	6	23	—	—	—	—	—	—	4	2	—
16. Paranoia and paranoid conditions	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses	2	10	12	—	—	—	1	1	—	3	—	—
22. Without psychosis	—	—	—	—	—	—	—	—	—	—	—	—
Total	67	39	106	1	1	2	3	2	5	5	7	12

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	25-29 years			30-34 years			35-39 years			40-44 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Traumatic	-	-	-	-	-	-	-	-	-	-	-	-
Senile	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	-	-	-	-	-	-	-	-	-	8	-	8
General paralysis	1	-	1	-	1	1	12	-	12	1	-	1
With cerebral syphilis	-	-	-	-	-	-	-	-	-	-	-	-
With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-
With brain tumor	-	-	-	-	-	-	-	-	-	1	-	1
With other brain or nervous diseases	-	-	-	2	2	-	-	-	-	-	-	-
Alcoholic	-	-	-	-	-	-	-	-	-	-	-	-
Due to drugs and other exogenous toxins	-	-	-	-	-	-	-	-	-	-	-	-
With pellagra	-	-	-	-	-	-	-	-	-	-	-	-
With other somatic diseases	-	2	2	-	-	-	1	3	4	1	2	3
Manic-depressive	-	1	1	-	2	2	-	-	-	1	1	2
Involution melancholia	-	-	-	-	-	-	-	-	-	-	-	-
Dementia praecox	5	2	7	4	1	5	2	-	2	1	1	2
Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-
Epileptic psychoses	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses and neuroses	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	1	1
Undiagnosed psychoses	-	3	3	-	-	-	-	-	-	-	-	-
Without psychosis	-	-	-	-	-	-	-	-	-	-	-	-
Total	6	8	14	4	6	10	15	3	18	13	5	18

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	45-49 years			50-54 years			55-59 years			60-64 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	-	-	-	-	-	-	-	-	-	-	-	-
2. Senile	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis	-	-	-	1	-	1	-	1	1	-	-	-
4. General paralysis	5	-	5	3	-	3	2	-	2	1	-	1
5. With cerebral syphilis	-	-	-	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases	-	1	1	-	1	1	1	-	1	1	-	1
9. Alcoholic	-	-	-	-	-	-	-	-	-	-	-	-
0. Due to drugs and other exogenous toxins	-	-	-	1	-	1	-	-	-	-	-	-
1. With pellagra	-	-	-	1	-	1	-	1	1	-	-	-
2. With other somatic diseases	-	-	-	-	-	-	-	-	-	-	-	-
3. Manic-depressive	-	1	1	-	-	-	1	-	1	-	-	-
4. Involution melancholia	-	-	-	-	-	-	-	-	-	-	-	-
5. Dementia praecox	-	-	-	-	-	-	1	-	1	-	-	-
6. Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-
7. Epileptic psychoses	-	-	-	-	-	-	-	-	-	-	-	-
8. Psychoneuroses and neuroses	-	-	-	-	-	-	-	-	-	-	-	-
9. With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-
0. With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-
1. Undiagnosed psychoses	1	-	1	1	1	2	-	1	1	-	-	-
2. Without psychosis	-	-	-	-	-	-	-	-	-	-	-	-
Total	6	2	8	7	2	9	5	3	8	2	-	2



TABLE 9. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total			Illiterate			Reads and writes			Common school			High school			College			Unascertained
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
1. Traumatic	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-
2. Senile	1	1	2	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-
3. With cerebral arteriosclerosis	33	1	34	-	-	-	1	1	2	24	1	25	7	-	7	1	-	1	-
4. General paralysis	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-
5. With cerebral syphilis	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-
6. With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases	3	5	8	-	-	-	1	-	1	2	5	7	-	-	-	-	-	-	-
9. Alcoholic	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases	3	9	12	-	1	1	1	1	2	2	6	8	-	1	1	-	-	-	-
13. Manic-depressive	3	7	10	-	-	-	-	-	-	1	1	2	2	5	7	-	1	1	-
14. Involution melancholia	1	1	2	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
15. Dementia præcox	17	6	23	-	-	-	-	-	-	5	2	7	9	4	13	3	-	3	-
16. Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency	2	10	12	-	-	-	-	-	-	2	5	7	-	-	3	3	-	2	2
21. Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22. Without psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	67	39	106	-	1	1	3	1	4	39	21	60	21	13	34	4	3	7	-

TABLE 10. Population of Place of Residence of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total		0-2,499		2,500-9,999		10,000-24,999		25,000-49,999		50,000-99,999		100,000-249,999		250,000-499,999		500,000+		Unknown		
	M.	F.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.		F.	T.
1. Traumatic	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	
2. Senile	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3. With cerebral arteriosclerosis	1	1	-	-	2	-	1	1	-	-	-	-	-	-	-	-	1	-	-	-	
4. General paralysis	33	1	-	-	34	-	2	2	5	-	2	-	4	-	-	-	16	-	-	-	
5. With cerebral syphilis	1	-	1	1	2	4	-	-	-	-	-	-	-	-	-	-	1	-	-	-	
6. With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7. With brain tumor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8. With other brain or nervous diseases	3	5	-	-	8	1	-	-	1	-	-	-	1	2	-	-	4	4	-	-	
9. Alcoholic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10. Due to drugs and other exogenous toxins	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	
11. With pellagra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12. With other somatic diseases	3	9	-	-	12	-	1	1	1	1	1	1	2	2	-	-	1	6	7	-	
13. Manic-depressive	3	7	-	-	10	-	2	2	2	2	1	1	1	1	-	-	3	1	4	-	
14. Involution melancholia	1	-	-	-	1	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	
15. Dementia praecox	17	6	-	-	23	1	1	2	2	2	1	1	4	-	-	9	5	14	1	-	
16. Paranoia and paranoid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17. Epileptic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18. Psychoneuroses and neuroses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19. With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20. With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21. Undiagnosed psychoses	2	10	-	-	12	1	1	-	2	2	-	1	1	3	-	-	-	4	4	-	
22. Without psychosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	67	39	-	1	106	5	1	6	3	5	8	8	5	13	3	4	7	33	20	53	2
																				2	

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Dependent			Marginal		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	—	—	—	1	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	1	2	—	—	—	1	1	2
4. General paralysis . . . . .	33	1	34	1	—	1	32	1	33
5. With cerebral syphilis . . . . .	1	—	1	—	—	—	1	—	1
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	3	5	8	—	—	—	3	5	8
9. Alcoholic . . . . .	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	2	—	2	—	—	—	2	—	2
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	3	9	12	—	—	—	3	9	12
13. Manic-depressive . . . . .	3	7	10	—	—	—	3	7	10
14. Involution melancholia . . . . .	1	—	1	—	—	—	1	—	1
15. Dementia praecox . . . . .	17	6	23	—	1	1	17	5	22
16. Paranoia and paranoid conditions . . . . .	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	2	10	12	—	—	—	2	10	12
22. Without psychosis . . . . .	—	—	—	—	—	—	—	—	—
Total . . . . .	67	39	106	1	1	2	66	38	104

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	1	—	1	1	—	1	—	—	—	—	—	—
2. Senile . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	1	1	2	—	1	1	—	—	—	1	—	1
4. General paralysis . . . . .	33	1	34	13	—	13	16	1	17	4	—	4
5. With cerebral syphilis . . . . .	1	—	1	1	—	1	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases . . . . .	3	5	8	1	5	6	2	—	2	—	—	—
9. Alcoholic . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins . . . . .	2	—	2	2	—	2	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases . . . . .	3	9	12	—	8	8	1	1	2	2	—	—
13. Manic-depressive . . . . .	3	7	10	1	5	6	2	2	4	—	—	—
14. Involution melancholia . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
15. Dementia praecox . . . . .	17	6	23	8	6	14	7	—	7	2	—	—
16. Paranoia and paranoid conditions . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	2	10	12	2	10	12	—	—	—	—	—	—
22. Without psychoses . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Total . . . . .	67	39	106	29	35	64	29	4	33	9	—	—



TABLE 13. *Marital Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Single			Married			Widowed			Separated		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Traumatic	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
Senile	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	1	1	2	-	-	-	1	-	1	-	1	1	-	-	-
General paralysis	33	1	34	5	-	5	26	1	27	1	-	1	1	-	1
With cerebral syphilis	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With brain tumor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other brain or nervous diseases	3	5	8	-	2	2	2	2	4	-	-	-	1	1	2
Alcoholic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to drugs and other exogenous toxins	2	-	2	1	-	1	1	-	1	-	-	-	-	-	-
With pellagra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other somatic diseases	3	9	12	-	1	1	3	8	11	-	-	-	-	-	-
Manic-depressive	3	7	10	2	4	6	1	2	3	-	1	1	-	-	-
Involution melancholia	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-
Dementia praecox	17	6	23	15	1	16	2	5	7	-	-	-	-	-	-
Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epileptic psychoses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses and neuroses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	2	10	12	1	6	7	1	4	5	-	-	-	-	-	-
Without psychosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	67	39	106	25	14	39	39	22	61	1	2	3	2	1	3

TABLE 14. *Psychoses of Readmissions*

PSYCHOSES	Male	Female	Total
General paralysis	1	-	1
Psychoses with other somatic diseases	-	2	2
Manic-depressive psychoses	1	2	3
Dementia praecox	1	2	3
Total	3	6	9

TABLE 15. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Traumatic	-	-	-	-	-	-	-	-	-	-	-	-
Senile	-	-	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis	-	-	-	-	-	-	-	-	-	-	-	-
General paralysis	11	2	13	-	-	-	9	1	10	2	1	3
With cerebral syphilis	-	-	-	-	-	-	-	-	-	-	-	-
With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-
With brain tumor	1	-	1	-	-	-	-	-	-	1	-	1
With other brain or nervous diseases	-	3	3	-	-	-	3	3	-	-	-	-
Alcoholic	1	1	2	-	-	-	1	1	2	-	-	-
Due to drugs and other exogenous toxins	-	-	-	-	-	-	-	-	-	-	-	-
With pellagra	-	-	-	-	-	-	-	-	-	-	-	-
With other somatic diseases	1	2	3	1	1	2	1	1	-	-	-	-
Manic-depressive	2	4	6	-	-	-	1	4	5	1	-	1
Involution melancholia	-	3	3	-	-	-	-	3	3	-	-	-
Dementia praecox	3	6	9	-	-	-	3	5	8	-	1	1
Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-	-
Epileptic psychoses	-	1	1	-	-	-	-	1	1	-	-	-
Psychoneuroses and neuroses	-	1	1	-	-	-	-	1	1	-	-	-
With psychopathic personality	1	-	1	-	-	-	1	-	1	-	-	-
With mental deficiency	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses	-	1	1	-	-	-	-	1	1	-	-	-
Without psychosis	-	-	-	-	-	-	-	-	-	-	-	-
Total	20	24	44	1	1	2	15	21	36	4	2	6

TABLE 15-A. *Hospital Residence during This Admission of First Court Admission Discharged during 1933*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	—	—	—	—	—	—
2. Senile . . . . .	—	—	—	—	—	—
3. With cerebral arteriosclerosis . . . . .	—	—	—	—	—	—
4. General paralysis . . . . .	11	2	13	.59	.25	.53
5. With cerebral syphilis . . . . .	—	—	—	—	—	—
6. With Huntington's chorea . . . . .	—	—	—	—	—	—
7. With brain tumor . . . . .	1	—	1	.50	—	.50
8. With other brain or nervous diseases . . . . .	—	3	3	—	.50	.50
9. Alcoholic . . . . .	1	1	2	.50	.50	.50
10. Due to drugs and other exogenous toxins . . . . .	—	—	—	—	—	—
11. With pellagra . . . . .	—	—	—	—	—	—
12. With other somatic diseases . . . . .	1	2	3	.50	.50	.50
13. Manic-depressive . . . . .	2	2	4	.50	.50	.50
14. Involution melancholia . . . . .	—	1	1	—	.50	.50
15. Dementia praecox . . . . .	3	6	9	.39	.34	.35
16. Paranoia and paranoid conditions . . . . .	—	—	—	—	—	—
17. Epileptic psychoses . . . . .	—	1	1	—	.50	.50
18. Psychoneuroses and neuroses . . . . .	—	1	1	—	.50	.50
19. With psychopathic personality . . . . .	1	—	1	.50	—	.50
20. With mental deficiency . . . . .	—	—	—	—	—	—
21. Undiagnosed psychoses . . . . .	—	1	1	—	.50	.50
22. Without psychoses . . . . .	—	—	—	—	—	—
Total . . . . .	20	20	40	.54	.43	.48

TABLE 16. *Cause of Death of Patients Classified with Reference to Principal Psychoses*

CAUSES OF DEATH	Total			General paralysis			*All other psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Epidemic, Endemic and Infectious Diseases</i>									
Purulent infection, septicaemia . . . . .	1	—	1	—	—	—	1	—	1
<i>Diseases of the Circulatory System</i>									
Endocarditis and myocarditis . . . . .	—	3	3	—	—	—	—	3	3
<i>Diseases of the Respiratory System</i>									
Bronchopneumonia . . . . .	—	2	2	—	—	—	—	2	2
Lobar pneumonia . . . . .	1	1	2	1	—	1	—	1	1
Other diseases of the respiratory system (tuberculosis excepted). . . . .	1	—	1	1	—	1	—	—	—
Total . . . . .	3	6	9	2	—	2	1	6	7

\* Includes Group 22 "without psychoses"

TABLE 17. Age of Patients at Time of Death Classified with Reference to Principal Psychoses

PSYCHOSES	Total			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years
	M.	F.	T.								
1. Traumatic	-	-	-	-	-	-	-	-	-	-	-
2. Senile	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis	2	-	2	-	-	-	-	-	-	-	2
6. With Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases	-	-	3	-	-	1	-	-	1	1	-
9. Alcoholic	-	-	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases	1	3	4	1	1	-	-	1	-	1	-
13. Manic-depressive	-	-	-	-	-	-	-	-	-	-	-
14. Involution melancholia	-	-	-	-	-	-	-	-	-	-	-
15. Dementia praecox	-	-	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions	-	-	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses	-	-	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses	-	-	-	-	-	-	-	-	-	-	-
19. With psychopathic personality	-	-	-	-	-	-	-	-	-	-	-
20. With mental deficiency	-	-	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses	-	-	-	-	-	-	-	-	-	-	-
22. Without psychoses	-	-	-	-	-	-	-	-	-	-	-
Total	3	6	9	- 1 1	- 1 1	- 1 1	-	- 1 1	- 1 1	1 1 2	2 - 2



TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses*

PSYCHOSES	Total			Less than 1 month			1-3 months		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-	-	-	-
4. General paralysis . . . . .	2	-	2	-	-	-	2	-	2
5. With cerebral syphilis . . . . .	-	-	-	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	-	3	3	-	2	2	-	1	1
9. Alcoholic . . . . .	-	-	-	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins . . . . .	-	-	-	-	-	-	-	-	-
11. With pellagra . . . . .	-	-	-	-	-	-	-	-	-
12. With other somatic diseases . . . . .	1	3	4	-	2	2	1	1	2
13. Manic depressive . . . . .	-	-	-	-	-	-	-	-	-
14. Involution melancholia . . . . .	-	-	-	-	-	-	-	-	-
15. Dementia praecox . . . . .	-	-	-	-	-	-	-	-	-
16. Paranoia and paranoid conditions . . . . .	-	-	-	-	-	-	-	-	-
17. Epileptic psychoses . . . . .	-	-	-	-	-	-	-	-	-
18. Psychoneuroses and neuroses . . . . .	-	-	-	-	-	-	-	-	-
19. With psychopathic personality . . . . .	-	-	-	-	-	-	-	-	-
20. With mental deficiency . . . . .	-	-	-	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	-	-	-	-	-	-	-	-	-
22. Without psychosis . . . . .	-	-	-	-	-	-	-	-	-
Total . . . . .	3	6	9	-	4	4	3	2	5

TABLE 19. *Average Length of Hospital Stay during the Present Admission of All Cases in Residence on September 30, 1933*

PSYCHOSES	Number			Average Length of Residence in Year		
	M.	F.	T.	M.	F.	T.
1. Traumatic . . . . .	-	-	-	-	-	-
2. Senile . . . . .	-	-	-	-	-	-
3. With cerebral arteriosclerosis . . . . .	-	-	-	-	-	-
4. General paralysis . . . . .	13	3	16	.45	.45	.45
5. With cerebral syphilis . . . . .	-	-	-	-	-	-
6. With Huntington's chorea . . . . .	-	-	-	-	-	-
7. With brain tumor . . . . .	-	-	-	-	-	-
8. With other brain or nervous diseases . . . . .	2	1	3	.45	.45	.45
9. Alcoholic . . . . .	1	-	1	.45	-	.45
10. Due to drugs and other exogenous toxins . . . . .	-	1	1	-	.45	.45
11. With pellagra . . . . .	-	-	-	-	-	-
12. With other somatic diseases . . . . .	-	1	1	-	.45	.45
13. Manic-depressive . . . . .	2	11	13	.45	.45	.45
14. Involution melancholia . . . . .	1	-	1	.45	-	.45
15. Dementia praecox . . . . .	6	8	14	.47	.71	.60
16. Paranoia and paranoid conditions . . . . .	2	-	2	.45	-	.45
17. Epileptic psychoses . . . . .	1	1	2	.45	.45	.45
18. Psychoneuroses and neuroses . . . . .	4	2	6	.45	.45	.45
19. With psychopathic personality . . . . .	1	-	1	.45	-	.45
20. With mental deficiency . . . . .	-	-	-	-	-	-
21. Undiagnosed psychoses . . . . .	5	5	10	.45	.45	.45
22. Without psychoses . . . . .	5	4	9	.45	.45	.45
Total . . . . .	43	37	80	.45	.51	.48

## The Commonwealth of Massachusetts

## ANNUAL REPORT

OF THE

## TRUSTEES

OF THE

## BOSTON PSYCHOPATHIC HOSPITAL (Susan)

FOR THE

YEAR ENDING NOVEMBER 30,

1934

DEPARTMENT OF MENTAL DISEASES



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<sup>1</sup>By arrangement with the Department of Mental Diseases.



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## REPORT OF THE TRUSTEES OF THE BOSTON PSYCHOPATHIC HOSPITAL

*To His Excellency the Governor, and the Honorable Council:*

Perusal of this annual report cannot fail to convince that the amount and quality of the work done at the Boston Psychopathic Hospital justifies the confidence and respect in which the hospital is held by the medical profession and the general public. The volume of a year's activity is impressive; no less than 2,000 patients received the benefit of scientific study on the wards, a certain number of these remaining considerable lengths of time for treatment. The accumulation of medical data on these ward patients and the compilation of diagnostic and advisory reports represents a huge task. To the out-patient department came 775 new patients, while 314 received intensive treatment in the clinic for neurosyphilis.

The quality and the varieties of service rendered are witnessed to by the director's report and the individual communications of the several heads of departments. Again we would call attention to the extraordinary achievements of the Department of Therapeutic Research where, under Dr. Solomon and his colleagues, syphilis of the central nervous system is being treated in one of the world's most notable clinics. The social service aspects of this work with its follow-up necessities, mainly the result of the unremitting zeal of Mrs. Maida Solomon who for eighteen years has volunteered her services, have proved exceedingly valuable for successful medical treatment and social adaptation as well as from a research standpoint.

We congratulate ourselves on our new laboratories made possible by a generous gift from the Harvard Medical School and the indefatigable efforts of Dr. d'Elseaux. The new space, the new equipment and Dr. d'Elseaux's enthusiastic program promise well for increased output of research.

Up to the present some 418 pupil nurses from other hospitals have come to us for educative training and experience in nursing mental cases. This program of affiliated service, now nine years old, is a boon to the nurses themselves, to their service in general hospitals in which problems of mental disorder inevitably crop up, and to the public who often need nursing service for mental cases.

Work done at the hospital by medical men on fellowships and not on our staff continues to be highly desirable. Some of them bring special technical training and some are engaged in important pieces of research.

There are many improvements which we desire, particularly on account of our building yearly growing more outmoded and gradually becoming a little more decrepit. Any projects that would make considerable alterations or extensions possible would be highly welcomed by us.

Once more we insist that the good work of this hospital is largely due to the special loyalties of the staff to the ideals of the hospital and to the fine relationship that exists between the director and the chiefs of departments, particularly Dr. Bowman and Dr. Solomon who have been with us so many years. That there is so little to criticize in the care of patients or in other features of the management of the hospital is due to their splendid professional and personal attitudes.

Through the death of Dr. Allan Winter Rowe we stand under the shadow of the loss of one of our most active and valuable members. On our records we have inscribed a memorial to this noted scientist and true friend of our hospital.

Respectfully submitted,

WILLIAM HEALY, *Chairman*  
ESTHER M. ANDREWS, *Secretary*  
CARRIE I. FELCH

CHANNING FROTHINGHAM  
CHARLES F. ROWLEY  
WILLIAM J. SULLIVAN

### MEDICAL DIRECTOR'S REPORT

*To the Board of Trustees of the Boston Psychopathic Hospital:*

In accordance with the provision of the statutes I submit for your consideration the report for the statistical year ending September 30, 1934 and for the fiscal year ending November 30, 1934.

#### THE ROLE OF THE BOSTON PSYCHOPATHIC HOSPITAL

The Boston Psychopathic Hospital has three main functions: (1) that of a special health service to the residents of metropolitan Boston and to patients from other districts of the Commonwealth who for various reasons may be referred to this hospital; (2) research into the nature and causes of insanity and into its prevention and treatment; (3) instruction of physicians and medical students in the principles and practice of this specialty of medicine, and of psychologists, nurses, occupational workers, social workers in the special problems pertaining to this field of medicine.

In carrying out its function of service to the sick the work of the Boston Psychopathic Hospital covers a somewhat broader field than does the general hospital, while it does not make claim to the same intensive study and treatment of the varied disorders of the bodily systems which are dealt with in the general hospital. In the latter the patient can often be adequately treated as an isolated unit without much reference to his personality, his past experiences, the economic and social environment in which he lives. It is otherwise with the patients of the Boston Psychopathic Hospital. In each patient an adequate review has to be made (1) of the bodily functions; (2) of the personality of the patient; (3) of the social environment which has influenced his personality and which exposes the individual to special stresses and strains. This tripartite task is present in the case of every individual patient, although the importance of the three aspects varies from case to case. In some patients the problem of the disorder is solved by a thorough study of the bodily functions. This is, for example, the case in many patients suffering from mental symptoms associated with infectious diseases, severe anaemia, heart disease, respiratory disorders, glandular conditions, structural damage of the brain, poisons of organic or inorganic nature, with special deficiencies of diet as in pellagra. In other cases the simpler bodily functions do not seem to be primarily at fault, the trouble seems to be at a more complex level. Even though the body be robust the individual may have a personality ill equipped to cope with the ordinary trials and vicissitudes of life. The appetites may be insubordinate, the emotional life may be rather explosive, imagination may tend to run riot, a healthy bond with his fellows may be difficult to establish, a feeling of response to broader social needs and to spiritual values may be lacking. The attempt of such an individual to establish a stable personal equilibrium and a tolerable relationship to his immediate environment may be unsuccessful and the result may be in some cases a transitory mental disorder, in others permanent failure to adapt behaviour and beliefs to the restrictions of social life.

In the third group of cases environmental influences may play a dominant role. In these cases, even with a fairly satisfactory physical endowment and with a personality which under happier circumstances might have maintained an acceptable balance, the special circumstances of life may bring about transitory periods of turmoil or a permanently twisted or inefficient mode of life. The early atmosphere of the home, the penetrating influence of parents, incidental experiences of failure, the absence of a satisfactory outlet for native skill, the absence of constructive and supporting social comradeship, the intoxication of special individual and group influences may be the outstanding causal factor of the individual disorder.



From the point of view of service to the individual patient, the bodily, personal and social aspects of each case have to be scrutinized. In each one of these fields, in addition to the practical aspect of the survey, there is the opportunity to the spirit of scientific curiosity to utilize observations to increase our existing stock of knowledge and to contribute something to the answer of unsolved problems. The service to the patient would be a poor service if the spirit of scientific curiosity were absent and if the physician considered his problem to be merely the identification of recognized types of disorder and the recommendation of a routine treatment. Adequate service requires the recognition of what is special to the individual case as well as its general type. It requires not only the recognition of what is familiar but also sensitiveness to what is individual and unfamiliar. For adequate service the patient must be accepted as an individual with his own special challenge; what is unfamiliar in the individual case must not be discarded as merely incidental and disconcerting from the point of view of an orderly system but must be carefully considered and thoughtfully studied. Even what is familiar is not necessarily well understood. Familiarity tends to breed a certain indifference and the physician has to remain continuously conscious of how little is actually known of the real meaning of many of the familiar groups of symptoms to which he can so easily attribute learned names.

Curiosity as to the meaning of familiar symptoms and as to the importance of unfamiliar symptoms motivates precise observation, the collection of relevant data, the formation of tentative explanations and the submission of such explanations to confirmation by further observation or by experimental methods. Thus in the sick room scientific curiosity finds special topics of investigation and carries on research into those phenomena which are the special marks of sickness. There is a tendency to look upon research as somewhat remote from the ordinary work of the physician. The first association of the term research in the minds of most people would be laboratory. Research in the laboratory, however, while employing detailed, precise and highly specialized methods, is but the attempt to carry on still further the analysis of a problem presented at the bedside. Intelligent work at the bedside is a prerequisite for the work in the laboratory; before an answer to a question is sought it is well that the question should be an intelligent one and formulated in precise terms. For practical purposes, where the use of the microscope and of special chemical tests is required, the full investigation of the patient may be carried on in two stages, in the ward and in the laboratory. While there may be some structural division between ward and laboratory, there should be no corresponding mental division in the mind of the physician. In the quest for knowledge the physician should think of the ward and the laboratory as one.

As service to the patient should not be divorced from the attitude of scientific investigation or research, so service to the patient is closely interwoven with problems of teaching. It is generally agreed that in a hospital where teaching is one of the recognized activities patients are most intensively studied. Teaching demands clarity of thought and of formulation, it challenges the exact status of our knowledge at any given time, it brings up for discussion those factors which are still of uncertain meaning, it brings to a focus the varied facts which bear upon the condition of the patient. The questions and the direct observations of the alert student whose interests have not been stereotyped by familiarity with standard doctrines may be very illuminating to the teacher. In discussion between teacher and students the condition of the patient becomes more definitely formulated, the causes of his sickness are more precisely appreciated, the exact value of different forms of treatment are critically scrutinized.

It is, therefore, of value to the patients in the Boston Psychopathic Hospital that those responsible for their care carry out their work in an atmosphere of free discussion with colleagues, recent graduates and medical students.

In the various departments, in the psychological laboratory, in the social service department and in the nursing group there is the same association of those directing the work and of a continual stream of students who bring the stimulus of fresher points of view and eager curiosity.

In the general body of this report the special work which is going on in the various departments is outlined in some detail. It may be appropriate, however, here to give the broader background of these more special reports, and to indicate



in a general way the practical work of the hospital and its significance for the community. The statistical tables at the end of the report give detailed figures of the kind traditionally associated with an annual report. To the average reader, not interested in technical details, these figures may have comparatively little meaning. It has, therefore, been the custom in the annual reports from the Boston Psychopathic Hospital to make reference to a few concrete examples of the actual work so that the reader of the report may realize how many practical issues of life are touched by this work. These few examples may help to transform the skeleton of a statistical table into a living reality and enable the citizen to see behind book-keeping figures fellow-beings in distress of body and of mind.

One may first present very briefly two patients in whom the essential problem is one of bodily sickness, although the symptoms have been of such a nature as to lead to their admission to the Boston Psychopathic Hospital.

A young woman was admitted from another hospital owing to mental confusion, an attack of screaming, ideas that people were operating on her and behaving in a strange way. The mental symptoms had developed immediately after her baby was born. On admission the patient had a high fever and was suffering from pyelitis. The important medical problem was to deal with the infectious condition.

In this case the centre of interest was not the special emotional and other personal problems of the patient but the impersonal problem of infection and the practical steps necessary to deal with the infection. As soon as the patient presented no special difficulty in general management she returned to the general hospital for the continued treatment of her physical ailment. Her physical health was restored sooner than her mental health, and two weeks later she had to return to the Boston Psychopathic Hospital as she was still disturbed emotionally and had many odd ideas. On her readmission her physical condition required very little special supervision and the main problem was now that of helping the patient to regain her emotional balance and her normal objective outlook. Ten weeks after readmission the patient was quite herself and returned home.

A man in the prime of life was picked up on the streets while roaming about in the rain in the outskirts of Boston after midnight. He poured out a detailed story about friction with his relatives, his determination to regain the custody of his child, impulsive and apparently ill-considered appeals which he had made to various people during his overactive condition on the day previous to admission. He was overtalkative, self-assertive, somewhat resentful and accusatory.

The patient's loss of balance, his impulsive determination to carry out certain plans, his self-assertiveness seemed to be closely related to a breakdown in his physical health. He had symptoms of an overactive thyroid gland; he had well marked heart disease.

The problem for the physician consisted in outlining treatment for the thyroid and heart condition, while the review of the patient's emotional life and special attitude received less attention. As the physical condition improved the general mental balance and outlook became very much more satisfactory.

A quite different problem from those presented by the previous patients with bodily ailments and secondary mental symptoms is presented by the following cases.

A woman of fifty was indulging in eccentric religious behaviour. She walked about the church without her shoes, she wanted to kiss the right hand of everyone, she talked of a crown of glory awaiting her at midnight. This peculiar behaviour was not explained by any physical disorder; the patient was in good physical health, had no appearance of being ill, was quite robust.

The patient was a single woman of moderate education who had come to this country at the age of twenty-six and done simple domestic work for many years. She had lived a rather lonely life and had made few social contacts. She seemed to prefer the company of her own sex and never expressed any desire to be married. She was a devout church-goer. This rather lonely woman, with regard to whose inner life little was known, began suddenly to show the extreme religious behaviour which led to her admission to the hospital. In the hospital the patient kept very much to herself, was quite preoccupied with her religious procedures and with various unexplained rituals. She claimed that she was a saint and was making a retreat in a convent to atone for the sins of others. She claimed that she was married to a husband who had money and that she still consulted him day and night.

In this case the mental disorder of the patient seemed to have no relation to any breakdown of the ordinary bodily functions but to be the expression of the underlying wishes for personal happiness and for spiritual value of a woman whose real life had furnished her very few of the satisfactions which human nature craves. The mental disorder supplied her with what reality had denied her. The fact that she had got inadequate satisfaction from real life was not to be attributed so much to unfavorable external circumstances as to the limitations of her own personality.

In another patient the cravings of the patient were of a more mundane nature, but here too the mental disorder consisted essentially in her insistence on living out the creations of her phantasy as if they were real. The patient, an efficient office worker, a somewhat seclusive individual, had been much preoccupied with the desire to marry the right sort of man. She had apparently been somewhat exigent in her demands. Her social life was very restricted. During a period of unemployment her ability to hold her phantasies in check and to retain her critical ability seems to have deserted her for she conjured up a most romantic situation in which wealthy suitors were taking elaborate precautions to notify her of their whereabouts. On account of her behaviour, which was in keeping with these phantasies, she was brought to the hospital.

The following case illustrates that group of patients in whom there is no evidence of a specially unstable personality nor special physical ailment, but where the personality succumbs to unusual demands made upon it.

The patient, a woman in the prime of life, was brought to the hospital after attempting suicide. The suicidal attempt was apparently not due to any serious constitutional tendency towards depression but due to her inability to deal with particularly trying experiences. Sometime previously her husband, owing to financial depression, had committed suicide under circumstances which left her with a certain feeling of guilt. She tried to gain peace of mind by seeking all types of recreation and led an active social life, in the course of which she had a love affair with a man, marriage with whom was impossible. She then lost her only surviving child. Since the death of her husband she had ruminated over the possibility of suicide and had even made one attempt but now, after the death of her child, the accumulated circumstances led her to make a much more serious attempt, after which she was admitted to the hospital.

In the light of such a case one scrutinizes the resources of human nature for dealing with the serious emergencies of life and considers what are the educational forces which may train the individual to meet such difficulties and what are the resources of the community which may support the individual through such trying periods.

A man in the prime of life had been a bright and sociable individual, efficient in business, interested in literature and current events. In the thirties he found that his wife had been unfaithful to him during his frequent absences. He obtained a divorce. After his divorce he established relations with another but with no bond of affection. During the past two years the general economic situation made it impossible for him to carry out his financial obligations. He became despondent, felt that he was worn out, wished he was dead. He was further depressed by a somewhat serious diagnosis given him by a physician.

The patient came of rather unstable stock and his breakdown was no doubt to a certain extent, determined by his individual vulnerability. On the other hand, the actual incapacity seemed to have been definitely precipitated by a series of external circumstances for which he had little responsibility.

In the individual case one is dealing with a complex group of forces and it is seldom that one can clearly isolate one single factor which is responsible for the total problem presented by the patient. Bodily symptoms may be present, but the general stability of the individual is also, as a rule, of some importance. The personality may be somewhat vulnerable or unstable but external stresses usually play a considerable role in the development of the actual disorder. In each case one has to do what is possible to attribute its respective role to each of the three factors, the bodily factor, the personal factor, the environmental factor.

There are two groups of mental disorders which not only present interesting problems with regard to fundamental biochemical and physiological processes and with regard to the personality of the individual with his complex urges and needs,



but which have unusual economic and social importance and which are intimately related to the codes, the customs and the organization of the community. These two groups are the syphilitic psychoses and the alcoholic psychoses. Dr. Haven Emerson has recently in no uncertain terms given his views as to the responsibility of the community and of the medical profession for dealing with these problems (Presidential Address before the American Public Health Association at Pasadena, California, Sept. 3, 1934). The syphilitic and the alcoholic psychoses together present a large percentage of the total case-load of insanity which is such a burden to the community as a whole. The syphilitic psychoses and the alcoholic psychoses are above all others preventable disorders. Their prevention, however, is not a question of some administrative measure which can be carried out by a government bureau and its personnel, it is a challenge to the intelligence and the conscience of the community as a whole. The attitude of a community towards these disorders and the measures for their prevention adopted by the community may be a useful index of the real cultural level of a community.

#### SYPHILITIC PSYCHOSES

This is not the place to take up the broad question of the prevention of syphilis, with all the complexities of individual psychology and of social organization involved therein.

In regard to the treatment of syphilitic mental disorders the present generation has seen steady and uninterrupted progress. A generation ago the diagnosis of general paralysis or paresis which is one form of brain syphilis meant a sentence to death within two to five years. At the present time such a diagnosis made at the Boston Psychopathic Hospital has a much less gloomy outlook. One-third of the patients thus diagnosed and treated appropriately are expected to return to their previous level of work and social efficiency. Another third may not be capable of such a complete cure but will be able to retain over a prolonged period a condition of reduced efficiency and moderate well-being.

In this pioneer work in treatment no one in this country has been more active than Dr. Solomon. Dr. Solomon has for over twenty years followed every promising line of treatment, has carried out independent investigations, has carefully analyzed the observations which he has so industriously collected. His report shows in some detail how a bedside problem if attacked in a spirit of scientific curiosity takes the physician from the ward to the laboratory, where he can with special apparatus and measures of precision probe more deeply into the nature of the incapacity of the patient, a sickness which in its turn has been determined by the cravings of human nature and by an unsatisfactory social environment.

#### ALCOHOLIC PSYCHOSES

At the Boston Psychopathic Hospital there are admitted a constant stream of cases in whom the abuse of alcohol plays an outstanding role. To the physician these patients present many interesting problems both with regard to the biochemical and physiological reactions and with regard to the psychological equilibrium of the patient. These patients, however, are more than special problems for the physician, they have an important significance to whoever is interested in sociological problems or in the welfare of his fellow-men and the organization of the community.

The alcoholic psychoses are not to be looked upon as merely a technical problem for those interested in brain pathology. They represent human lives distorted and crippled on account of a complexity of factors, social as well as individual. The significance of this whole problem may be illustrated by presenting in a most summary form an unselected series of these cases admitted within a single month.

A.B., an artisan in the thirties, had been a difficult boy, a truant at school. After his war service he had many jobs, but during the depression had been out of work. From the age of eighteen he had a series of arrests for drunkenness and he had spent some time in the House of Correction, had been several times on probation. He was twice married and had two children whom he terrorized when under the influence of alcohol. He said "they are my kids, I can do with them as I like." The patient was sent to the hospital from the court where he had been taken after prolonged brawling.



This patient had been allowed to remain in the community during all these years, inefficient and a source of discord, with two little daughters exposed to the contamination of his influence. Children would not be allowed to live without very special safe-guards in a house where there is a case of scarlet fever or other exanthematous disorder, but the community tolerates the exposure of these children during the formative years of childhood to the influence of such a parent.

B.C., an ex-police officer, had two years previously been discharged from the force on account of his drinking (*quis custodiet custodes?*). He was brought to the hospital after a prolonged debauch and a self-injury of possibly suicidal nature. His physical condition showed tremor, enlargement of the liver, bronchitis, evidence of blood in the stools. The patient had been drinking from the age of sixteen. His three children were being brought up in the home of this man.

C.D., a man in the thirties, living the hard life of a fisherman, used his periods at home for periodic debauches of drinking. He finally became afraid and developed many terrifying delusions.

To what needs did alcoholic indulgence respond in this case? What alternative sources of satisfaction were available? What social contacts with any constructive value were at hand?

D.E., the wife of the preceding patient, had lived a sober life until her marriage to this second husband. Apparently due to his influence she began to drink to excess and finally developed marked delusions.

E.F., a salesman in the forties, who for many years used alcohol to excess, was admitted in a condition of delirium.

F.G., a salesman in the forties, suffering from circulatory disease, had been drinking heavily for eleven years. A young son had been brought up in this atmosphere. The patient had been taken to court on account of brawling at home and was referred to the hospital.

G.H., a war veteran in the thirties with some evidence of organic involvement of the central nervous system, had since the war been unable to work steadily, had finally become irritable, his personality changed. He began to drink in order to be sociable and became at times threatening and destructive. Two children were being brought up in the unwholesome atmosphere of the patient.

H.I., a laborer, had lived a simple uneventful life but had always been accustomed to drink socially although apparently he was sensitive to alcohol and reacted in an excessive way. There was some evidence of involvement of his kidney and liver. The patient was brought to the hospital after a weekend spree in which he became afraid that he would harm himself.

I.J., a man in the thirties, had from an early age been associated with the liquor business. During the past fifteen years he had been in many hospitals on account of mental trouble due to drinking. Owing to his disorderly behaviour, general attitude and apparent deterioration of personality he was brought to the hospital.

In this case one sees a young man with good endowment, with satisfactory education and with favorable economic and social circumstances, begin in the twenties to indulge to excess in alcohol and steadily to eliminate all that gives value to the human personality.

J.K., as a young man had the ambition to enter the religious life but did not have the necessary stability for this career. He later entered the police force but began to drink on his time off, and the consequent irritability and morbid attitude made it necessary for him to leave the force.

K.L., a salesman of thirty-eight from the middle West, had been acting in a threatening manner under the influence of drink. He had been out of employment; his wife had deserted him. The patient refused to discuss any of his personal troubles which possibly were closely connected with his alcoholism. The patient was an only child, the parents had separated; the patient's father was alcoholic.

L.M., a counter-man of thirty, had been drinking since the age of nineteen. He tended to worry over certain misdemeanors and claimed that he drank in order to forget his mistakes. After a period of unusually heavy drinking he began to feel that he was suspected of certain notorious crimes. He began to hear voices and finally made a suicidal attempt.

M.N., a prosperous business man in the fifties accustomed to go on sprees, during one spree actually developed various delusions and made rather dangerous preparations to defend himself. The patient was in a good position, a married man with two grown children. The blood gave a positive Wassermann test but there was no evidence of the central nervous system being involved by the syphilitic process.

N.O., a young man in a fair economic position, before going to visit his wife in the Lying-In Hospital where she had just had a baby, took a few drinks. He had no memory of what happened after that but apparently he attempted to wreck a gas station, having become wildly delirious. The patient had of late begun to show increasing sensitiveness to the use of alcohol. He claimed that he drank to escape worry over responsibilities. The sex life was of importance; his wife had frequently refused to have sexual relations on the basis of having a family as large as they could adequately care for.

This case illustrates the inter-dependence of various factors, the personal susceptibility, the disturbed sexual situation, the patient's reaction to this, the pharmacological influence of the alcohol.

O.P., a laborer, forty-six years of age, had been discharged from the hospital three weeks previously after an attack of delirium tremens. Two weeks after discharge he resumed drinking and acutely developed delusions that people were going to cut his legs off; owing to these delusions he went to the police station.

P.Q., a laborer of twenty-nine, previous to admission had been nine times in the police court on account of drunkenness. In his drunken attacks he was apt to be very destructive. The patient was sent to the hospital by the court. Three children were being brought up under the influence of this poorly endowed and alcoholic parent.

Q.R., a machinist, forty years of age, since the World War had been accustomed to drink to excess. His alcoholic indulgence had apparently led to his marriage with a dissolute woman. He was admitted to the hospital in a delirious condition.

R.S., a clerk of thirty, had for the year before admission been constantly drinking. He had begun to drink during his college career. During the year of excessive drinking previous to admission he had been behaving in an eccentric way and passing worthless checks. There was no special physical condition nor external difficulty to explain the patient's behaviour. He was a college graduate.

To the physician interested in the bodily processes and the reaction of the system to deleterious influences or to the absence of essential supplies, the disturbance of the bodily economy in chronic alcoholism offers many intriguing problems. Dr. Robert Fleming has in the laboratory of the hospital been carrying on special investigations on the course of the alcohol after introduction into the system, beginning with an inquiry into its entry into the blood stream and into the cerebrospinal fluid. One looks forward to further investigations on the nature of the general disturbance of nutrition, of the changes in the stomach and in the liver functions, of the factors involved in the production of neuritis.

Alcoholism is, however, not merely an impersonal or physiological problem, it has to be looked upon as part of the conduct of the individual. The factors which lead a person to adapt himself to life in this way are even more worth attention than the nature of the physiological effects of alcohol. No single formula can be offered in interpretation of alcoholism as a form of personal behaviour. From ancient times and in all climes alcohol has been utilized to exalt the mood in keeping with the needs of special situations. The individual may appeal to alcohol to modify physical pain, to heighten imaginative activity, to improve social contact. It is intelligible, therefore, that human nature with its complex organization, with its inhibitions, tensions and restrictions should eagerly exploit the possibilities of alcohol. It is perhaps not surprising that the individual should continue to do so even when the probable price is a transitory mental disorder, permanent impairment of memory, distortion of one's personal relations, deterioration of moral fibre, the development of a social atmosphere which is detrimental to one's fellows and poisonous for one's children.

In the individual case the physician has the problem not merely of caring for the physical symptoms and the temporary mental disturbance but also of making a thorough review of the personality of the patient, of taking stock of its assets and



liabilities and of giving the patient this opportunity of doing some constructive work with regard to his later career. Such a procedure is time-consuming and requires the hearty cooperation as well as a certain level of intelligence on the part of the patient. In some patients there is no longer or may never have been any keen response to the moral issues involved in the conduct of the individual life, and the offer of the physician may mean nothing to the patient.

The alcoholic patient brings to the attention of the physician problems which are broader than those of the individual personality, its driving forces and inner conflicts. The alcoholic lives as a member of a social group; his alcoholic indulgence is not to be looked on merely as the reaction of an organism which can be studied in isolation; it is the behaviour of an individual living in a certain community with its traditions, its institutions, its beliefs, its social habits. Alcoholism forces us to consider what are the needs of human nature and what are the available means of satisfaction. The individual is liable to have external as well as internal difficulties. The internal difficulties depend on conflicts of appetites, instincts, emotions, affections, ambitions, ideals. The external difficulties may consist of material hardships, uncongenial and exhausting work, a drab environment, lack of cultural amenities, experiences of failure, unsympathetic or hostile contacts. Pain, poverty, bereavement may have to be dealt with. The physician has to consider not only how he may strengthen the body of his patient but how far he may modify inner tensions and how far he may bring social support to the individual. In some cases he may be of considerable use through his personal contact with the patient, but for the continued maintenance of the equilibrium of the patient there must be a program of life and circumstances which bring to the individual a certain degree of satisfaction, which make life tolerable with a balance on the credit side of the account.

When the patient leaves the hospital he must find tolerable conditions of work and recreation: he is entitled to satisfaction from work accomplished, pleasure in the application of personal skill, some social contact which will give his individual resolution the support of group opinion, some contact with a group whose views of life and general code and periodic meetings keep alive in him beliefs, which give to his life a certain savor even in the midst of transitory or prolonged difficulties. The alcoholic who leaves the hospital has little chance of living a worthy life unless there is some reasonable organization of the community so that his fundamental human needs will be satisfied to a modest degree.

#### ON THE OUT-PATIENT DEPARTMENT

The difficulty of modifying mental disorders is in part due to the fact that the patient is only seen at a late stage of the disorder when the modes of thought and behaviour have become fixed and when the situation has lost some of its plasticity. A constant effort is being made throughout the community to see by what means those in need of help may at an early stage be steered in the right direction. This is no easy task for as a rule the person in need of help is often the last to recognize it and the first to resent the suggestion that he should apply for help. It is no easy task in the school or college, in the factory or in the office to organize the necessary first-aid treatment and to make such a first-aid unit a familiar and acceptable source of consultation. The out-patient department of the hospital is a first-aid station where one offers assistance to those who are not sick enough to require admission to the hospital and who are able to carry on their usual program in the home, at school or in industry. Some patients have heard of the department from friends and come up spontaneously to get advice. Others are referred by teachers, physicians, nursing organizations, family welfare organizations.

A great many of the patients are children. In many of the children the basal factor is some fundamental defect, either congenital or acquired in infancy. In many other cases the problem is one of behaviour or of the nervous balance of the child. The nervous child is very rarely the problem of an isolated unit but is a problem of family life, and the full investigation of the symptoms involves a review of the total situation and often means bringing important help to the parents in regard to problems of their own lives.

The examination of the child is no easy matter and differs considerably from that of the adult. The child has to be approached in a much less formal manner



and his inner life and preoccupations are more likely to be expressed in play, in drawing and in spontaneous activities than in responses to a series of formal questions. Both the nature of the nervous disorders of childhood and the methods which are most suitable to their analysis are important problems for investigation.

#### ON THE SOCIAL SERVICE DEPARTMENT

A mental disorder in distinction from the ordinary run of bodily ailments has to be considered as one phase of the reaction of an individual to the demands of the actual life situation. The study and treatment of the individual case, therefore, involves not only the systematic examination of the physiological functions and the psychology of the individual but also of the environmental factors which enter into the life of the patient. A thorough reconstruction of the environmental situation is often an essential part of the study of the nervous symptoms of childhood, of a child's misbehaviour or delinquency, of an adult's depression or suspicion.

The physician is seldom in a position to make this investigation personally and must rely upon trained workers who have the necessary tact and special experience. Such an ancillary service is necessary not only for the complete study of the patient but also for the consistent treatment of the patient. The cure of the patient is measured not by such simple tests as in a physical bodily ailment where the blood count, the temperature, the weight, the urine may give the necessary indication to the physician of restored balance. The recovery of the mental patient is measured by the way in which he responds to the actual demands of life and adapts himself to the home, the neighborhood, the group, the working environment, the general social demands.

To give the patient the best chance of readaptation it is very often desirable that the patient should get a certain amount of assistance and direction on his return to ordinary life. The sympathetic insight and tact of those around him may be an important factor in determining the success of his return to the environment. Interviews with the teacher, with a parent, with the spouse or with the employer may prevent unnecessary setbacks and relapses, and contact of the social worker with the environment for a reasonable period is a very valuable safeguard.

The report from the social service department gives a good view of the concrete details which are covered by such a general statement, and shows how the work of the hospital fits in to many of the other social activities of the community.

A heavy demand is made upon this department by the court cases which are referred to the hospital for study and diagnosis. In all these cases the social background has to be carefully reviewed and the data thus gathered play a very important part in the diagnosis and general appreciation of the case.

The workers in this department serve, to a large extent, as liaison officers between the hospital and other organized activities of the community, and even a glance at the analysis of the work given at the end of the social service report will show clearly how many of the everyday difficulties of life throughout the community come under the scrutiny and the helpful guidance of the social worker.

#### ON THE CARE OF THE PATIENTS

The study and care of the patient is not the problem of the physician alone, but requires the assistance of trained workers of different types.

The patients require the care of nurses trained not only in the ordinary duties of the bedside nurses but also sensitive to the special needs of individuals who are emotionally disturbed and who may have a distorted attitude to those around them.

Special forms of treatment of benefit to the general physique of the patient require an appropriate equipment and skilled personnel. Thus baths of different types are freely made use of, and the staff has had the benefit of a systematic course of instruction in hydrotherapy by Dr. Rebekah Wright, the hydrotherapist of the Massachusetts Department of Mental Diseases. Treatment by means of other physical agencies, by heat and by light are also available for suitable cases.

The treatment of the patient in the hospital is, however, not confined to special psychotherapeutic interviews and to special measures of physical hygiene, but is also kept in mind in the patient's daily program of activity. Limitations of space and of personnel restrict very severely the possibilities in this direction. Theoretically

ally, one would like to give a patient each day a total program in which constructive activity, rest and recreation would be well balanced. Unfortunately there is little possibility of wholesome outdoor activity in the open air and of the use of what Sir Thomas Clouston referred to as the greatest therapeutic instrument — the wheelbarrow. Occupation has, therefore, to be very largely indoor occupation, and is available for a comparatively few hours each day to the individual patient. Within these limitations, however, the occupational personnel contribute a valuable service in stimulating the interest of patients, in encouraging satisfaction from objective tasks, directing constructive efforts, fostering native skill, withdrawing energy from idle daydreams or unwholesome preoccupations to simple tasks carried out with the group in a cheerful atmosphere.

#### ON RESEARCH

Reference has already been made to the importance of the spirit of scientific curiosity and to the necessity of combining service to the patients with investigative activity. The detailed reports from the different departments and the bibliography at the end indicate the lines along which special investigative work has been carried on during the past year.

There has been brought together in book form a collection of reprints of the statistical studies on schizophrenia which have been carried on at the Boston Psychopathic Hospital since 1927 with the aid of funds derived from outside sources. Such studies may seem rather cold and austere, remote from the real problems of the individual case, dealing to a certain extent with scientific method rather than with the stuff of human life. They represent, however, one form of investigative activity which is concerned not so much with the results of investigation as with the accuracy and keenness of the tools which other investigators must necessarily use. They represent, therefore, a very fundamental piece of work. In the course of this work the various collaborators were forced to become more precise in their use of terms, more clear in the formulation of problems, more systematic in their grasp of the raw material of their observations. This investigation has done much, therefore, to prepare the way for the more specific investigation of the detailed mechanisms in those cases which are called schizophrenic, patients who form a large proportion of those failures in adaptation which tend to accumulate in the state hospitals.

A very different approach to the problems of the schizophrenic but one which is in no way inconsistent is that represented by the work which is referred to in the reports of Dr. Solomon and Dr. d'Elseaux. Here it is not a question of reviewing statistically hundreds or thousands of cases in order to see the general principles which underly the development of these disorders. It is a problem of the analysis of the individual cases with the most precise methods available to see whether the disorder of adaptation to demands of human life may be due to some subtle disturbance of the fundamental chemical and physiological life processes.

At the other extreme from the detailed life processes studied by Dr. d'Elseaux are the more complicated functions which are studied in the psychological laboratory by Dr. Wells and his group. Here special problems have been taken up partly on account of their technical interest, partly on account of their immediate practical importance. The psychologist has much to say about the difficulties of childhood, especially with those difficulties which are concerned with learning and the acquisition of skill, but also with difficulties of personal adaptation.

Attention has for some time been concentrated in the laboratory on the special difficulties of reading which hamper many children. This topic has been made a further object of study during the past year, the nature of which study is indicated in the report from the laboratory.

The condensed report of the head psychologist gives some hint of what is really an extensive program of investigation dealing with a variety of problems. The problem of adoption is a very practical problem involving the happiness of a group, and any assistance in dealing more efficiently with such a problem is to be welcomed. Miss Jones has continued to devote much time to the study of those practical indications which may be of use in deciding the individual case.



## ON THE GENERAL ADMINISTRATION OF THE HOSPITAL

The reports from the various departments give a condensed statement of the various activities which are being carried on in the departments, these activities being coordinated to subserve the two main purposes of the hospital, service to the sick and investigation of the causes and treatment of mental disorders.

The practical demands made upon the hospital by the admission of approximately two thousand patients annually, the complicated contacts with outside agencies and with the relatives of patients, the supervision of all the necessary formalities involved in the admission, discharge, commitment and transfer of patients, the coordination of the various services, the selection of employees, the supervision of supplies entail a considerable administrative burden which falls on the Chief Executive Officer. This burden is all the greater because the Boston Psychopathic Hospital is somewhat different in its functions and organization from the ordinary state hospital, and with its very large admission rate and special relations to the community furnishes many special problems.

During the major part of the past year Dr. Arthur N. Ball who from previous experience was familiar with the working of the hospital was acting chief executive officer. He was thus able to insure the smooth running of the hospital by putting at its disposal his long experience.

On September 16th Dr. Clifford D. Moore was appointed as Chief Executive Officer, coming from the Metropolitan State Hospital where he had done pioneer work as acting superintendent and where subsequently he had been assistant superintendent.

It is appropriate here to express my appreciation for the loyal services which during the past year have been given by the professional workers in their various departments and by the employees of the hospital. The atmosphere of the hospital is one of keen interest in professional problems and of willingness to see personal interests and claims in the perspective of a serious community service.

In particular I wish to express my deep sense of personal obligation to Dr. Karl M. Bowman, chief medical officer, whose unremitting attention to the organization of the medical service, to the careful scrutiny of the clinical material and to the preparation of reports upon all cases referred from the courts deserves special commendation.

I wish to thank the Board of Trustees for their continued interest in and attention to the needs of the hospital and for their readiness at all periods to give their assistance in meeting special situations and difficulties.

The hospital has just suffered a severe blow in the loss of a trustee, Dr. Allan W. Rowe, a genial personality, an indefatigable scientific worker, a man of the broadest interests. Throughout his many years of trusteeship at the Boston Psychopathic Hospital he followed with keen interest the various phases of its activity and put generously at its disposal his own specialized knowledge.

It is a pleasure to express appreciation of the support which during his term of office was afforded by Dr. James V. May, the retiring Commissioner of Mental Diseases, and which has been continued by his successor, the present Commissioner, Dr. Winfred Overholser whose appointment to this high office was very gratifying to his colleagues.

Respectfully submitted,

C. MACFIE CAMPBELL,  
*Medical Director.*







Dementia praecox (schizophrenia):																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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## REPORT OF THE CHIEF EXECUTIVE OFFICER

*To the Board of Trustees and the Medical Director of the Boston Psychopathic Hospital:*

The position of Chief Executive Officer continued until September 17, 1934, to be filled by Dr. Arthur N. Ball, Assistant to the Commissioner of Mental Diseases, who had been assigned to the position in an acting capacity following the death of Dr. Samuel Smith Cottrell on July 16, 1933. The hospital owes a debt of gratitude to Dr. Ball for the benefit of his previous experience in the position and services during that time.

A survey of the tables for the statistical year ending September 30 will show that the admissions were 2,000, the average daily population 75.42, and the total number of patients regularly committed to the hospital for longer periods of time than temporary care permits 136. The number transferred to Voluntary Status was 64. These figures are average for recent years and show little change from corresponding figures for the early years of the operation of the hospital as an independent unit. The highest admission rate is noted for the months of April, May and August. At no time during the year was there any overcrowding. These statistics would seem to indicate that full utilization of the 110 bed capacity had not been made, but in actual practice, and as a survey of the daily reports will indicate, there are occasions when the facilities of the hospital are taxed so that a safety margin of available beds must be maintained.

The current appropriation for maintenance purposes has been found adequate to meet the essential needs of the hospital. There still continues a definite and necessary legislative policy of strict economy in public expenditures. This policy has not reacted unfavorably as regards the providing of essentials for the welfare of patients, but it has prevented the carrying out of a normal program of repairs and renovations. In 1926 certain plans were projected for a building program for the hospital. Since 1931 the hospital has gone on record yearly as desiring the fulfillment of this program. At this time the administration of the hospital feels that if funds can be made available through public works sources, a detached residence for staff and employees is needed, together with funds for alterations in the hospital plant to modernize it and so permit of facilities for a rapidly expanding psychiatric field both in treatment and research.

The outstanding change in the hospital plant has been a reallocation of laboratory space. In March work was commenced which was finally completed in September so that there is now a set-up of clinical and research laboratories on one floor. The cost of alterations was met by a contribution of \$2,700 from Harvard Medical School, F.E.R.A. labor in the amount of \$304.05, and the remainder from the hospital maintenance budget. Repairs and Renewals items for the year were: (1) Ventilating equipment and partition in cafeteria and staff dining room; (2) Copper screens with welded frames in kitchen and dining room; (3) two powers thermostatic water controllers for admission wards; (4) Blodgett Gas Oven complete with heat control; (5) Hobart Slicing Machine Model No. 111.

Requests for the same item of the 1935 budget are as follows: (1) Copper welded screens for Ward 5 and Pool Room adjoining; (2) chain link fence for back yard; (3) hood for toaster and tea and coffee urns; (4) Soundproofing hydro rooms — Ward 3; (5) brick enclosure for garbage receptacles; (6) enlarge sitting room space Ward A; (7) new ammonia condenser; (8) repair of roof.

Current economic and social conditions have been reflected in hospital activities. A definite decrease in the income of the hospital for the board of patients is noted. The reason is not at all obscure although one gets the impression that there is a growing tendency towards a dependence on social and governmental agencies for the expenses of hospitalization. This tendency is responsible for an additional problem for hospital administrators, not so much in the case of this hospital, which is not directly dependent on such income, but rather in meeting the demands, at times unreasonable, of individuals for special services. The trend is reflected in the increasing requests of both old established and newly organized social agencies for information on patients. Such requests are in turn reflected in an increase in work of the clerical staff. Repeal of prohibition has undoubtedly changed the complexion of psychiatric problems on the hospital wards.

The turnover of hospital personnel is less than in former years although frequent changes continue to occur in non-professional groups. The morale of employees,

particularly in the lower brackets, has improved with a one-third restoration of salary decreases as of April 1, and the promise of full restoration as of December 1. There has been in general an appreciation on the part of hospital employees that they have enjoyed regular positions and full time employment.

Record should be made of the retirement of Dr. Charles G. Dewey and Dr. William H. Prescott from their positions as committing physicians for Suffolk County, the former in May and the latter in June. The relationship between them and the hospital over a period of years has been a most pleasant one and it was with keen regret that it was terminated. The vacancies so created have been filled by Dr. Charles B. Sullivan and Dr. Nathan Garrick who carry on in the same cooperative manner. Elizabeth Libber Shore, treasurer, for the institution retired March 3, 1934, after a service of eleven years and her position was filled by Anna F. Caulfield who had served as assistant to the treasurer for three and one-half years. Elveretta Blake who has filled the position of senior library assistant since 1922 retires at the end of the present year, having attained the retirement age.

I wish to express my appreciation for the cooperation extended to me by the Department of Mental Diseases, the Board of Trustees, and the entire hospital personnel during the brief period of my present incumbency.

Respectfully submitted,

CLIFFORD D. MOORE, M.D.

*Chief Executive Officer.*

## REPORT OF THE OUT-PATIENT DEPARTMENT

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith submit the annual report of the Out-patient Department for the year ending November 30, 1934.

The staff of the clinic during the past year was as follows:

Dr. C. Macfie Campbell, Medical Director of the Hospital.

Dr. Oscar J. Raeder, Chief of Out-Patient Department.

Dr. Mary Palmer, Assistant Physician.

Dr. Charles Sullivan, Assistant Physician to May 1, 1934.

Dr. Charles H. Kimberly, Assistant Physician, June 2, to July 19, 1934.

Dr. Irma Bache, Assistant Physician from September 1, 1934.

Miss Annie C. Porter, Clinic Manager.

*Special Workers:* Dr. Henry B. Elkind, Dr. Ella Prescott Cahill, Dr. Jessie D. Campbell, Dr. Arthur McGugan, Dr. Merrill Moore, Dr. Hortensia A. F. Robinson, Dr. Myer Brody, Dr. Hyman Millen, Dr. K. Dabrowski, Dr. Marjorie Meehan, Dr. J. Finesinger, Dr. William J. Roth, Jr., Dr. Conrad Wall.

Students: Mr. Reed Harwood, H.M.S., IV.

During the fiscal year 1933-34 there were 775 new patients, an increase over last year of 23 patients, and 293 old patients, a total of 1,068. Of the new patients 370 were male, and 405 were female. Among the 370 males 186 were adults, 64 were adolescents (14 to 18 years inclusive), and 120 were children. Of the 405 new female patients 237 were adults, 93 were adolescents, and 75 were children.

Visits made by 775 new patients number 1,830. Old patients made 1,028 visits, a total of 2,858 clinic visits.

The reasons for consulting the clinic were numerous, as usual. For convenience they have been grouped under the following headings: (a) behavior, 167 patients; (b) domestic, 30 patients; (c) education, 72 patients; (d) neuropathic, 404 patients; (e) personality, 5 patients; (f) routine examinations, 48 patients; (g) vocational, 17 patients; (h) miscellaneous, 32 patients.

The most frequent were those with neuropathic conditions. Among these we find patients complaining of pains, definite or vague, in various parts of the body, etc. A large number of these were psychoneurotic individuals. School problems, conduct and behavior disorders in which mental defect is a common factor composed another large group, 72 patients. (See table.)

Patients were referred from various sources as follows: Social agencies, 290; Other hospitals, 137; Private physicians, 107; Relatives and friends, 101; Own initiative, 35; School, 30; Boston Psychopathic Hospital, 26; Court, 27; Department of Mental Diseases, 4; Others, 18.



The diagnoses have been rearranged to conform as much as possible to the new grouping adopted at the last annual meeting of the American Psychiatric Association in New York in 1934. Additional classifications are here added only where it is necessary to cover the different types of cases (out-patient cases) not included in the official list. (See 1934 edition of State Hospital Manual).

Among the diagnoses the largest group was that of the psychoneuroses, 132 patients, of which 61 were male and 71 female. The next group in point of numbers is that of the feeble-minded, a total of 124 patients, 66 males and 58 females. Of these the great majority fell in the moron and borderline classes. Eighty-six patients in the combined groups were about equally divided between the sexes. There were 4 cases of Mongolism. In the manic-depressive group there were 36 new cases, 11 males and 25 females. Hospital treatment was advised for most of them; a few were treated at the clinic. Likewise among the psychoneurotic groups a large number of the reactive depressions which may be difficult to differentiate from manic-depressive depressions were referred for treatment in the hospital. Of these, however, the greater number were successfully treated in the Out-patient Department.

We feel that the economic depression with resultant unemployment and consequent family worries was again a special factor in the causation of many of the depressions in both these groups.

The schizophrenic types numbered 29 cases, 16 males and 13 females. Among the unclassified subdivisions are included a large number of incipient psychotic states tentatively diagnosed Schizophrenia. These cases were almost all referred to the Boston Psychopathic Hospital where continuous observation and more careful study is available. The clinic has also been following up several cases of schizophrenia who have been discharged from state hospitals, including the Boston Psychopathic Hospital.

The contribution of the psychological department to the out-patient work has again been a large and important part of the clinic activity. Among the cases tested there were found 13 patients with "superior" or "very superior" intelligence. Of these, 3 cases were conduct problems which furnished the motive for consultation. One of these "very superior" patients is notable in that he showed remarkably poor judgment in his serious intention of marrying a girl of moron intelligence. On the other hand, we recently had a patient, an adolescent girl of 17 with dull normal intelligence according to tests, who showed good enough judgment to complain to the police and succeed in leaving a home in which the mother was sexually immoral. Such cases serve to emphasize the importance of clinical psychiatric judgment in the interpretation of intelligence quotients.

A large group, 62 cases, under behaviour disorders is that of so-called "adult maladjustment". Here we have included marital problems where incompatibility of temperament or atypical personality makeup may be causative factors. Some cases of sex delinquency — unmarried mothers — are also listed in this category. There were in all 44 women in this group.

The child guidance clinic has continued to treat childhood problems and many of these cases are included under "primary behaviour disorders in children". There were 43 such cases, 21 boys and 22 girls. Children with neurotic traits numbered 46, about evenly divided in sex. Enuresis, temper tantrums, phobias, nail biting, with various types of misconduct and sex problems, masturbation, etc. are prominent complaints in this group. The Social Service has been of much help in getting information about home conditions and in teaching parents the psychiatric techniques necessary for the treatment of these frequently stubborn conditions.

A small group of reading problems, especially in children of average intelligence, has attracted the attention of Dr. Wells and his staff who have given time to follow and treat some of these conditions.

For other groups see table of diagnoses.

Dr. Palmer and Miss Viola Jones of the psychology department made a school survey during the months of May and June in one of the Reading Schools at the request of the Superintendent through Dr. Neil A. Dayton of the Department of Mental Diseases. There were 35 children examined in this emergency survey completed just before the close of the school year.



## STATISTICS OF THE OUT-PATIENT DEPARTMENT

OCTOBER 1, 1933 TO SEPTEMBER 30, 1934

*Number of Patients*

Total patients (New patients, 775; old patients, 293)			1,068
<i>New patients:</i>	Male	Female	Total
Adults	186	237	423
Adolescents	64	93	157
Children	120	75	195
	370	405	775

*Visits*

Total Visits of 1,068 patients	2,858
Clinic days	301
Average number of visits per day	9
Average number of visits per day by new patients	6
Average number of visits per day by old patients	3

## PROBLEMS

(a) *Behavior*: sex delinquency, stealing, misconduct, court charges, masturbation, running away, truancy, stubbornness, larceny; 167 cases.

(b) *Domestic*: marital difficulty, neglected child, home situation, family situation, 30 cases.

(c) *Educational*: school placement, retardation, reading difficulty, question of further schooling, school difficulty; 72 cases.

(d) *Neuropathic*: somatic complaints, psychiatric examination, temper tantrums, hallucinations, depression, alcoholism, seizures, nail biting, odd behavior, nightmares, worry, nervousness, troublesome thoughts, unreasonableness, sleepiness and confusion, moodiness and nervousness, question of endocrine disorder, mental upset, fears, question of psychosis, screaming spells, severe headaches, crying spells, hysterical symptoms, worry and depression, suspiciousness and irritability, paranoid ideas, tics, nervous habits, dizziness, slowing up, odd ideas, peculiar odor, staggering, homosexuality, inability to adjust, speech difficulty, enuresis, suspiciousness, delusions, imaginations, depression and self-consciousness, fainting spells, poor memory and carelessness, irritability, fatigue, periods of unconsciousness, conflicts, persecutory ideas, stuttering, failing memory, insomnia, inferiority feeling, incest, dizzy spells, habit spasms, peculiarities, excitability, neurosis, ugliness, weak spells, mood swings, emotional upsets, depression and nervousness, feeding problem, twitchings, suicidal attempt, confusion, anxiety condition, immaturity, compulsions, over-religiousness, tenseness, difficulty in walking; 404 cases.

(e) *Personality problems*: difficulty in social relationships, personality problem; 5 cases.

(f) *Routine examination*: adoption, placement, psychometric examinations; 48 cases.

(g) *Vocational problems*: vocational advice, future plans, ability to adjust economically; 17 cases.

(h) *Miscellaneous*: After-care, hospitalization; 32 cases.

<i>Referred by:</i>	Male	Female	Total
Boston Psychopathic Hospital	14	12	26
Other hospitals	64	73	137
Private physicians	61	46	107
Social agencies	99	191	290
Department of Mental Diseases	3	1	4
Court	20	7	27
Lawyer	2	0	2
School	23	7	30
Relatives and friends	54	47	101
Own initiative	17	18	35
Church	6	3	9
Veterans Bureau	1	0	1

Newspaper article . . . . .	4	0	4
Norfolk Prison Colony . . . . .	1	0	1
Trustee, B.P.H.. . . . .	1	0	1
	370	405	775

<i>Diagnoses</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
General paresis . . . . .	5	1	6
Psychosis with other infectious diseases . . . . .	—	1	1
Alcoholic psychosis . . . . .	2	—	2
Psychosis with arteriosclerosis . . . . .	1	2	3
Psychosis with convulsive disorder . . . . .	1	1	2
Senile psychosis . . . . .	3	4	7
Involution melancholia . . . . .	—	2	2
Psychosis with brain tumor . . . . .	1	—	1
Psychosis with other brain or nervous diseases . . . . .	—	2	2
Psychoneuroses:			
Hysteria . . . . .	2	7	9
Psychasthenia . . . . .	10	9	19
Neurasthania . . . . .	19	16	35
Hypochondriasis . . . . .	—	2	2
Reactive depression . . . . .	9	19	28
Anxiety type . . . . .	8	5	13
Others, unclassified . . . . .	13	13	26
Manic-depressive Psychosis:			
Manic phase . . . . .	4	4	8
Depressed phase . . . . .	7	14	21
Mixed type . . . . .	—	2	2
Unclassified . . . . .	—	5	5
Schizophrenia:			
Paranoid . . . . .	1	1	2
Hebephrenic . . . . .	1	1	2
Unclassified . . . . .	14	11	25
Paranoid condition . . . . .	6	7	13
Psychosis with psychopathic personality . . . . .	—	2	2
Psychosis with feeble-mindedness . . . . .	—	1	1
Puerperal psychosis . . . . .	—	1	1
Undiagnosed psychosis . . . . .	9	10	19
Diagnosis deferred . . . . .	25	23	48
Without Psychosis:			
Alcoholism . . . . .	9	2	11
Personality disorder due to epidemic encephalitis . . . . .	—	1	1
Psychopathic personality with pathological sexuality . . . . .	2	2	4
Psychopathic personality with asocial trends . . . . .	2	—	2
Psychopathic personality, unclassified . . . . .	14	23	37
Epilepsy . . . . .	16	12	28
Feeble-mindedness:			
Imbecile . . . . .	2	5	7
Moron . . . . .	23	25	48
Borderline . . . . .	22	16	38
Dull normal . . . . .	17	10	27
Mongolian . . . . .	2	2	4
Superior intelligence . . . . .	11	4	15
Superior intelligence with conduct disorder . . . . .	1	2	3
Average intelligence . . . . .	18	21	39
Average intelligence with conduct disorder . . . . .	5	6	11
Reading problem — high average intelligence . . . . .	2	2	4
Reading problem — low average intelligence . . . . .	3	—	3
Epilepsy with Feeble-mindedness:			
Imbecile . . . . .	2	—	2

Moron . . . . .	1	-	1
Borderline . . . . .	1	-	1
Behavior disorders — Adult maladjustment . . . . .	18	44	62
Primary behavior disorders in children — habit . . . . .	3	6	9
Primary behavior disorders in children — Conduct . . . . .	21	22	43
Primary behavior disorders in children — Neurotic traits . . . . .	25	21	46
Without psychosis — No nervous or mental disease. . . . .	3	5	8
Oculogyria (Post-encephalitic) . . . . .	-	1	1
Neuritis . . . . .	1	1	2
Chorea . . . . .	1	-	1
Arteriosclerosis . . . . .	1	3	4
Other brain disease . . . . .	1	1	2
Endocrine . . . . .	1	1	2
Bronchial asthma . . . . .	1	1	2
	370	405	775

<i>Disposition</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Boston Psychopathic Hospital . . . . .	47	41	88
Out-patient Department . . . . .	166	140	306
State Hospital recommended . . . . .	5	14	19
Wrentham or Waverley recommended . . . . .	5	5	10
General hospital advised . . . . .	-	1	1
Agency report . . . . .	121	174	295
Court report . . . . .	18	25	43
Relatives . . . . .	7	5	12
Special class . . . . .	1	-	1
	370	405	775

As heretofore clinical staff meetings have been held for the discussion of problems and patients of special interest on Mondays and Wednesdays. The Director usually conducts these meetings, and members of the staff of physicians and our social workers and those from various outside agencies attend. Students and physicians alike are stimulated by these discussions which constitute an important factor in the teaching of medicine, nursing, sociology, and normal and abnormal psychology.

I wish to mention here the splendid cooperation we have had from the various departments and their staff members in the difficult and often patience-taxing routine of the daily clinic work.

Respectfully submitted,

OSCAR J. RAEDER,

*Chief of Out-Patient Department.*

## REPORT OF THE CHIEF MEDICAL OFFICER

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith submit the annual report for the medical service.

While there have been few changes in the medical service, there have been a number of changes in other services which reflect on the medical service. The change of organization of the laboratory service, placing the clinical and research work under one head and making it a full-time position, makes for better coordination and use of this service. The new laboratories, which are practically completed at this time, will allow for further work which will be of benefit to the medical service. An attempt is being made to work out with Dr. d'Elseaux and Dr. Solomon a method whereby a more intelligent and a greater use of our laboratory facilities will be obtained.

For the first time there have occurred transfers from the executive to the clinical staff and vice versa. The position of junior executive office has always been difficult to fill, and there have been a great many changes in this position. Frequently, a physician with no previous psychiatric training has held this position. All this has



not made for smooth running of the hospital nor for good cooperation between the clinical and executive branches. With the transfer of doctors back and forth from this position to the clinical service, a distinct improvement has been noted.

Different members of the staff have been encouraged to carry out researches of a special type or to interest themselves in unusual cases. Dr. Holt has spent considerable time in going over all the cases of epidemic encephalitis that have been admitted to this hospital. Dr. Green has been making a study of psychoses due to bromides. Dr. Fleming has carried out a very worthwhile piece of research on the alcoholic psychoses. On the completion of this appointment as chief of the male service on September 1, 1934, he was awarded a fellowship by the Rockefeller Foundation which has allowed him to continue his researches on this subject at this hospital. This plan of encouraging members of the staff, particularly the chiefs of service, to work on some psychiatric problem has proved very satisfactory, and it is hoped that in the future other members of the staff may be able to continue to work here under fellowship conditions as Dr. Fleming is doing.

Dr. Hayward reported an interesting case of retinitis pigmentosa before the Boston Society of Psychiatry and Neurology in May, 1934.

Dr. Bowman and Dr. Paul Howard reported a case of psychosis due to triethyllead intoxication before the Boston Society of Psychiatry and Neurology on October 18, 1934.

Several meetings of the Massachusetts Psychiatric Society were held at this hospital during the year.

With the removal of the bio-chemical laboratories from the second floor, further space has been made available, but there still remains, the problem of working out some plan to utilize Ward B. The office of the chief medical officer is being moved from Ward B to space made vacant by transferring the laboratory. It is probable that this room will be taken over by the Psychology Department temporarily. Our new chief executive officer, Dr. Clifford Moore, is carrying out a survey of the hospital to work out plans for obtaining better use of the space available.

The special research into schizophrenia, which has been financed by first the Laura Spellman Rockefeller Foundation and later by the Rockefeller Foundation, has come to a final close on December 1, 1934. During this period of time the hospital has been able to utilize the service of psychiatrists, social workers, a statistician, and clerical help in an intensive study of the schizophrenic problem. A considerable number of papers have resulted from this research and have been printed from year to year. These papers have been collected together in a single volume and are being distributed to various clinics and medical centers. A great deal of very valuable material has been accumulated from this research and is available for further study.

The whole question of admission of new patients has received considerable attention, having been discussed by the trustees of the hospital. It has long been felt that there should be some way for admitting mild cases without exposing them to the upsetting influence of more severe and disturbed cases. The structure of the hospital prevents any ideal solution of this problem, but several methods have been suggested and will be considered for improving the present situation.

Some rearrangement of the tub rooms is under consideration with the hope of being able to isolate the more noisy and disturbed patients from those who are quiet. It is hoped that certain sound-proofing construction can be carried out which will aid in this attempt.

It has been possible through outside funds to acquire two pieces of apparatus during the past year. An audiometer has been purchased which will be of great value in the testing of ear conditions and in determining certain neurologic diagnosis. A portable electric battery for both faradic and galvanic current has been acquired which is also a great service in testing out nerve reactions. Both of these pieces of apparatus have been desired for some time and are appreciated.

It seems fitting to express appreciation of the valuable services of our consultants who have been willing at all times to aid in the diagnosis and treatment of many difficult and obscure cases. Dr. Marlow, our new medical consultant, has made rounds three mornings a week. The result has been a distinct improvement in the medical care of our patients and a keener interest by the staff in the medical problem of such cases. The appointment of Dr. Horrax as neurosurgical consultant fills

an obvious lack in our list of consultants. There are many obscure cases of organic brain disease admitted every year among which are cases suspected of brain tumor. With Dr. Horrax's appointment, it will be possible to improve our diagnostic procedures in these cases. I would even raise the question whether this hospital may not develop into a diagnostic center for all such cases for the rest of the state hospitals and whether it may be possible to develop this service so that these cases may be operated on at this hospital.

The following report of the dental work has been submitted by the resident dentist, Dr. Peter J. Dalton.

#### DENTAL REPORT

Patients examined, 1,751; patients treated, 860; extractions, 884; fillings, 391; prophylaxis, 207; other treatments, 229.

Dental x-rays showed infection present in 50% of cases, with an additional  $8\frac{1}{2}$  doubtful. Impacted teeth were found in 8% of cases examined.

*The X-ray report for the year is given below:*

Month	Male	Female	Total
December . . . . .	12	16	28
January . . . . .	23	25	48
February . . . . .	21	12	33
March . . . . .	28	23	51
April . . . . .	42	15	57
May . . . . .	35	18	53
June . . . . .	34	18	52
July . . . . .	15	11	26
August . . . . .	36	22	58
September . . . . .	26	24	50
October . . . . .	38	17	55
November . . . . .	30	9	39
Total . . . . .	340	210	550

#### PHYSICAL THERAPY REPORT

*Patients treated: 64.*

*Treatment given: Ultra-violet light, 518; Diathermy, 72; Infra-red, 73; Auto-condensation, 8; Fulguration, 8; Galvanism, 1.*

Respectfully submitted,

KARL M. BOWMAN,

Chief Medical Officer.

#### REPORT OF THE BIOCHEMICAL LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

Within the past year the work of the laboratory has been greatly facilitated by its establishment in new quarters. The clinico-pathological and chemical laboratories are in adjacent rooms, while directly across the hall is a room set aside for the determination of basal metabolism. This concentration in itself has effected an economy of time and energy not hitherto possible. In addition the structure of each room lends itself to a more appropriate disposition of apparatus with a considerable increase in available space for workers. Of great importance is the fact that the room now available for determination of basal metabolic rates is free from unnecessary distractions which permits of more accurate determinations than has been possible previously.

As well as can be judged from the appended table the type of work which the laboratory has been called upon to perform has been little altered from previous years. Furthermore it is of an essentially routine though perhaps clinically basic nature. Thus of 6,930 determinations on blood, 6,578 were ordinary haematological counts and hemoglobin determinations, blood N.P.N. and sugar. Of 3,723 determinations referable to the renal excretory system, 3,695 were "routine examinations of urine." Of 219 smears for various purposes (excluding haematological smears)



208 were to ascertain the presence of gonococcus and of these the majority were routine cervical smears. Thus (excluding the work on spinal fluids) of a total of 11,012 determinations, 10,481 were essentially of a routine nature. The work on spinal fluid has been excluded chiefly because it is impossible with our present system of bookkeeping to determine the amount of influence (which must be great) exerted by the presence of a very active clinic for neurosyphilis.

Whether the routine nature of the type of test called for is an indication of the lack of gross physiological or biochemical abnormalities in our patients cannot be determined from our data. Our present system of recording yields us no knowledge of the indications for the various tests and little of the nature of the findings. From a rather sketchy review of our records it is found that 67% of the haematological examinations and 53% of the urine examinations were done as a matter of routine on admission without special request. Further, 58 of the 320 determinations for blood N.P.N., and 71 of the 367 determinations for blood sugar were above normal. So far as can be determined the examinations of stools and of sputa were negative. The above figures indicate the extent to which special requests are made for urine and haematological determinations. Do these tests which are especially requested together with the other essentially routine tests indicated in the table really answer the physiological and biochemical problems presented by the patient? From my contact with the patients I am forced to doubt this. The results of the special blood (N.P.N.) and urine examinations (sugar) indicate the presence of gross biochemical or physiological abnormalities sometimes in a considerable number of patients. In many cases these tests do not completely solve the problems presented.

I feel that one should not be satisfied with merely routine clinico-pathological and biochemical investigations, but should aim at a more complete, careful and intensive investigation of our patients. When a patient presents a problem of a biochemical or physiological nature it might well be possible for the medical consultant, the doctor in charge of the patient, and the chief of the laboratory to cooperate in the investigation of the particular patient's problem. The presentation of a series of such problems would, I feel, be highly stimulating to all concerned and lead to a more complete knowledge of our patients. I do not mean that this should take the proportions of research to answer the general physiological problems presented by our patients. It should be aimed at answering the problem of the individual patient. Such instances would, I feel, stimulate and point the way to more searching investigations which may more properly be considered by the Department of Therapeutic Research or which may be carried on by some member of the clinical staff as a special problem. Such work would make more complete and valuable use of the time and energy of the junior chemist. We are fortunate in having among our personnel four medical students of high calibre, some of whom would welcome the opportunity of working out real problems of this nature. It is felt that it would be profitable to have the senior interne, who has spent two years in carrying out the routine work, spend his time working on such problems.

It is felt that Dr. Fleming's work on alcohol comes more under the Department of Therapeutic Research and hence will be considered in the report of that department.

The staff of the laboratory for the past year has been as follows: — Junior Chemist — Mildred G. Gray; laboratory internes — T. R. Ingham, Donald T. Hall, Robert J. Kinney, H. Stanley Bennett, Hurley Motley, William Matthews, Joseph Bienkowski.

Respectfully submitted,

FRANK C. d'ELSEAUX, M.D.

Chief Biochemist.

## REPORT OF THE PSYCHOLOGY LABORATORY

*To the Medical Director of the Boston Psychopathic Hospital:*

The situation in regard to quarters remains substantially as in the previous report. Dr. Beck's absence in Europe has relieved this pressure to some extent but his return will again make this situation a difficult one.

As the teaching of psychometrics to medical students is organized, they meet as a group in the first year, and in sections during the third year. Accordingly what



can be presented in lectures, that is to say "theory", is offered first, with exercises and demonstrations two years later. Both are in relatively small amounts, and there should possibly be opportunity for certain students to make further contacts with the topic, as it is reflected in the problems of the patients with whom they deal.

After some special study of the matter, the most efficient division of the short time available for the course in psychology to "affiliate" nurses, who are in an advanced stage of their training, approximates four hours of lectures, four hours of demonstrations, two to four hours of discussions with lantern slides (see 1933 report), two to four hours of discussions of questions by students. Some experience has also been had in the teaching of first year nurses, where the closer following of a text seems preferable. Mandel Sherman's "Mental Hygiene and Education" is being used at present.

Work has continued with children presenting reading problems. The term "reading" has a rather loose significance dividing first into oral reading and silent reading. Oral reading means e.g. that the printed word *blue* evokes the spoken word-equivalent *blue*. Silent reading means e.g. that one could at least identify the printed word *blue* with a sample of the color. It also denotes whatever other meanings the printed matter has for the reader, i.e. the whole of the understanding. That one can read orally without understanding of content is well known (as most readers of this might read Schrodinger on quantum mechanics); but the child is unlikely to read with understanding what he cannot read orally. The child learns what the word *blue* denotes, mainly by learning that it denotes the same thing as the sound of blue. For practical purposes oral reading may be looked on as a normal and the most important link in the associations by which the printed word acquires meaning for the child. Subsequently of course, especially in learning to read foreign languages, the vocal cue diminishes in importance a good deal and becomes very dependent on individual imagery types.

The present concern has been mainly with the oral reading process. It has been sought to compare this with allied processes of language symbolization, as the naming of objects, or of colors. A simple test-technique for this purpose was developed and a series of norms obtained by an advanced student, M. S. Card, from public school pupils. Precise measurement is thus obtained of the difficulty that is introduced by presenting the printed symbol of e.g. a knife as compared with naming the knife itself, or a picture of a knife.

One of the difficulties with reading problem children is that the content of school material they can read, is too simple to gain their interest. The attempt has been made to organize material in ways to meet this objection, as by means of "action" photographs with simple descriptive text, or procedures of the game type which involve appropriate reading. The cases seen are in general conformity with the view that assigns to motivation a role at least equal to difficulties of physiological level. In the ordinary types of reading text, the children seen make far more errors with words they can read than with words they cannot. Many hundreds of these "careless" errors have been collected and have been made the subject of a special study. Their nature indicates them to be largely a product of "flash" methods of learning. These methods have a justification in the very special status of the English language, where the written word gives but slight, often misleading, cues to pronunciation, as contrasted with French, German, Russian or Italian. It is worthy of note that the literature concerning non-readers is predominantly in English, and this feature of the language may constitute an educational problem which is escaped by other chief members of its linguistic stock.

A conference dealing with the educational bearings of emotional processes was held under the auspices of the American Council on Education, during August, in Bar Harbor. The writer presented one of the conference reports. In addition to the study of "Adaptive Regression" which is now in proof, considerable progress has been made in organizing for publication a body of experimental material on learning, largely with the assistance of Mr. Hylan. A promising variant of the Rorschach test has been prepared. Certain problems in the relationship of numerical and verbal abilities, suggested in publications of David Levy and Alfred Adler are being subjected to experimental study; this is at present Mr. Atwell's chief research interest. Mr. Goldman continues his cooperative work at the Beth Israel

Hospital, and with Dr. Fleming is engaged in experimental study of alcoholism. Miss Jones continues her cooperative work on the effects of treatment in cretins and in mongolian conditions. She also examines many cases with regard to placement in adoptions. It is hoped by following these adoption cases, to throw light on the interpretation and validity of the examination methods involved. Miss Porch after giving very useful service in the laboratory's Rorschach investigations, has returned to the study of medicine.

The work which started from observations on preservation of verbal functions in the psychoses issued in a technique termed an "intelligence composite" test consisting of selected portions of various psychometric methods, chosen for their special relevance to the problem of deterioration. It has proved a very useful instrument and lends itself readily to emendation as experience with it accumulates.

Mr. Hylan leaves during this month to continue his medical work in other hospitals; there are no other changes in the staff.

Routine services to other institutions have been conducted as usual.

#### PUBLICATIONS

BECK, S. J. "The Rorschach Method and Personality Organization. Balance in Personality." *American Journal of Psychiatry*, 1933, 13, 519-532.

BECK, S. J. AND LEVY, D.M. "The Rorschach Test in Manic-Depressive Psychosis." *The American Journal of Orthopsychiatry*, 1934, 4, 31-42.

BECK, S. J. "The Rorschach Method and Personality Organization. III. The Psychological and the Social Personality." *The American Journal of Orthopsychiatry*, 1934, 4, 290-297.

#### Signed Reviews:

WELLS, F. L. *Mental Hygiene*, 7 titles.

*American Journal of Orthopsychiatry*, 1 title.

ATWELL, C. R. *Mental Hygiene*, 1 title.

BECK, S. J. *American Journal of Orthopsychiatry*, 1 title.

Three original papers by the writer are in the hands of editors.

Respectfully submitted,

F. L. WELLS,

Head Psychologist.

#### REPORT OF THE NEUROPATHOLOGICAL LABORATORY

To the Medical Director of the Boston Psychopathic Hospital:

During the year ending November 30, 1934 the Assistant Pathologist to the Department of Mental Diseases has continued as pathologist to the hospital, the major portion of the time being taken up with the work of the Department.

During the year ending November 30, 1934, 19 deaths occurred — an unusually low number. Of these, 11 came to autopsy at the hospital and 3 were released to the Medical Examiner, making a total of 14 autopsies or 73.6 per cent. Of these released to the Medical Examiner, death was due in the first case to acute alcoholism, aortitis and mesenteric thrombosis. This patient was a 62 year old parietic who had received treatment for this condition for many years. Eventually his serology became negative, and four years ago he was discharged from a State hospital. Since then he drank alcoholic liquors to excess. In the second case released to the Medical Examiner, death was due to an incised wound of the neck; suicidal. This was effected before entrance to the hospital. The third case was an alcoholic who died from acute cardiac failure and oedema of the brain. All three were males.

Of the 11 autopsies performed within the hospital, 8 were male, 3 female. Ages ranged between 33 and 63 years. Five of these gave a history of alcoholism and their pathology was typical of that condition. In 4 of them the liver due to fat deposits weighed over 2,200 grams — the largest weighing 2,680 grams. The heart and kidneys also contained excess fat. The spinal cords in these cases showed peripheral gliosis. Minute hemorrhages were also seen in the cord of one case. Arteriosclerosis was rare, but as the ages of all except one (aged 49) were under 40 years, this is not extraordinary. The 49 year old alcoholic showed evidence of a subdural hemorrhage of some duration. Of the remaining 6 autopsies, 4 were syphilitics who died from infections; one was a case of mitral stenosis with cerebral oedema and one a septicemia occurring in a case of senile dementia. This last case

was suggestive of Pick's Disease, both clinically and on gross pathological examination, but on microscopical examination senile plaques were prominent. The immediate cause of death in 8 of the 11 cases was due to infection.

Mr. A. E. Nielsen, the interne in bacteriology, left to take up an internship in Detroit in June, 1934. His place was temporarily filled by Mr. T. Ingham until September, when he was succeeded by Mr. William H. Sweet. Mr. Sweet reports the work done by the Bacteriological Laboratory as follows: smears, 46; blood cultures, 23; skin cultures, 2; stool cultures, 3; throat cultures, 16; urine cultures, 8; cultures from Viscera, 10; miscellaneous cultures, 6; dark field examinations, 2; Widal reactions, 2. The bacteriological interne also assisted at autopsies and in preparing tissues for microscopical examination.

Respectfully submitted,

ANNA M. ALLEN,

Assistant Pathologist to Department of Mental Diseases.

## DEPARTMENT OF THERAPEUTIC RESEARCH

To the Medical Director of the Boston Psychopathic Hospital:

The clinic for the treatment of neurosyphilis has been conducted without any major variation from last year. The chief reliance for therapeutic purposes is placed on a combination of drug and fever therapy. The size of the clinic is not greatly changed from the previous year. The number of patients treated and the type of treatment given is indicated in the following statistics.

<i>House:</i>	
Number of new patients treated . . . . .	62
Number of old patients admitted for treatment . . . . .	32
<i>Out-Patient Department:</i>	
Number of new patients treated . . . . .	32
Number of old patients treated . . . . .	188
Number of treatment cases . . . . .	314
New cases of syphilis (neural and non-neural) in house but not treated at hospital . . . . .	135
Cases remaining from previous year (neural and non-neural) but not treated at hospital . . . . .	12
Former house patients returning to neurosyphilis clinic for further diagnostic procedures . . . . .	6
Mates, children and siblings of syphilitic patients examined in neurosyphilitic clinic . . . . .	103
Total clinic register . . . . .	570
Total visits to Neurosyphilis Out-Patient Department . . . . .	5,527
By 32 new patients for treatment } . . . . .	5,363
By 188 old patients for treatment } . . . . .	
By 117 new patients* for examination } . . . . .	164
By 37 old patients* for examination } . . . . .	
Total treatments (exclusive of fever therapy) . . . . .	5,323
Given to house patients . . . . .	268
Given to out-patients . . . . .	5,055
Number of treatments given 314 patients (exclusive of fever therapy) . . . . .	5,323
Acetarsone . . . . . 170	Intraspinal . . . . . 9
Arsphenamin . . . . . 205	Neoarsphenamin . . . . . 214
Bismuth . . . . . 1,058	Tryparsamide . . . . . 3,667
Fever therapy . . . . .	545
Diathermy: 324 treatments given 18 new and 16 old patients.	
Malaria: 30 patients, 22 of whom were new and 8 old patients.	
Typhoid vaccine injections, 43.	
Electric blanket treatments given: 138.	

\*These are mates, children and siblings of syphilitic parents.



Diagnostic and therapeutic lumbar punctures . . . . .	1,037
Encephalographies . . . . .	18

A study has been completed of the results of tryparsamide treatment in 81 cases of general paresis in which the treatment was started between the years 1923 and 1930, and the condition of the patient recorded in 1933. A similar study of 173 cases of general paresis treated by malaria between the years 1925 and 1931, and as seen by the condition of the patient in 1934, is also completed. A comparison of the results of these two series is given in the accompanying chart:

#### COMPARISON OF RESULTS OF TRYPARSAMIDE TREATMENT AND MALARIA THERAPY

	<i>Tryparsamide Series</i>	<i>Malaria Series</i>
Total Number Cases Treated . . . . .	81	173
Clinical Results (Per cent)		
Arrested . . . . .	42.0	48.5
Stationary . . . . .	29.6	15.0
Unimproved . . . . .	28.4	36.5
Serological Results (Per cent):		
Negative . . . . .	37.5	36.7
Greatly improved . . . . .	16.3	20.7
Moderately improved . . . . .	10.0	18.3
Unimproved . . . . .	26.2	24.3

It should be stated that the malaria series does not indicate the results of malaria alone, as most of these patients received tryparsamide and other anti-luetic drugs subsequent to the malaria and in some cases prior to the fever. At any rate, the important conclusion arrived at is that these types of therapy lead to a good clinical status in more than 40 % of the patients with general paresis. Further conclusions can be drawn that there is not a great difference in the results obtained by the two somewhat different schemes of treatment. It is worth emphasizing, however, that the rather intensive and long-continued treatment as carried out in this clinic appears to give results that are somewhat more favorable than most of the results reported in the literature on the subject. The results as here reported indicate very clearly that the treatment of general paresis is very worth while. From the results of treatment as obtained in the cases of general paresis which are relatively well-advanced before a diagnosis is made, it follows that there is great need of earlier diagnosis of neurosyphilis.

In addition to the study of the effect of fever produced by malaria, studies have been continued on the effect of fever induced by diathermy and by electric blanket. There can be no doubt that fever produced by such physical means has a definite therapeutic value, but whether the results are as good as those obtained by the use of malaria fever, cannot be stated as yet as the result of our present experience. Perhaps in another year or two enough experience will have been obtained to allow us to draw some conclusions.

A few patients have been treated with the drug known as "acetarsone". This drug has been used for some years in France under the name of sodium stovarsol, and from the reports concerning its use in cases of general paresis, it seemed to have considerable therapeutic value. Our experience with this drug is as yet too limited to allow us to compare its effectiveness with other methods of treatment.

During the year Dr. Epstein, working in conjunction with Dr. T. J. C. von Storch of the Boston City Hospital, has perfected a new encephalography table containing a Bucky diaphragm as an integral part of the apparatus.

Last year a new filing system was introduced with a very complete index of neurosyphilitic cases according to diagnosis and symptoms as well. During the present year the filing and indexing has been carried back covering a twenty-year period. A description of this index system has been published in the "American Journal of Syphilis and Neurology" by Dr. Epstein.

One of the difficulties with the use of diathermy in the production of fever arose from the possibility of burns. The matter of developing electrodes that would avoid this hazard is a matter that has concerned both the manufacturers of the diathermy apparatus and the clinics in which this type of fever is used. It is pleasing to be able to record that Dr. Epstein who has been working in conjunction with

the N. E. X-ray Corporation, has produced simple electrodes for this purpose which apparently are fool-proof. Since their development, no burns have occurred. They have the further advantage over the other electrodes which we have seen in that they have an indefinite life. The electrodes consist of chromium covered metal plates joined together like a bracelet.

During the past years the Hinton test for syphilis has been widely used in New England. This test is considerably more sensitive than the conventional Wassermann test and because of this picks out a good many cases of syphilis which would otherwise be missed. Dr. Hinton and his co-workers have stated many times that with the use of the Hinton test the examination of the cerebrospinal fluid is hardly necessary. They have insisted that a negative test practically rules out the presence of syphilis of the nervous system. Studies of our material have shown that even in the hands of Dr. Hinton, negative Hinton test is obtained in cases of active central nervous system syphilis. The results of this investigation are ready for publication as well as some other considerations concerning the Hinton test.

Studies are also being conducted on the problem of Charcot joints and tabetic crises.

Dr. Kopp has been studying some of the physiological effects of fever for a couple of years or more. A study of the metabolic rate in neurosyphilitic patients undergoing therapeutic fever, show that there is an increase in the basal metabolic rate varying from 4 to 14% for each Fahrenheit degree of fever. The greater increases occur in patients who experience the most discomfort during the induction of fever. As a result of these studies, it appears that the increase in the metabolic rate in artificial fever closely parallels the increase obtained in fevers due to infectious diseases.

Dr. Kopp studied the velocity of blood flow by the decholin method in a group of patients having therapeutic fever. Among other observations, it was found that after a series of fever treatments, the basal velocity of blood flow increased, apparently indicating that the myocardium of the patient experienced a beneficial effect from the fever. In one patient with syphilitic heart disease, the changes in pulse rate and velocity of blood flow after the febrile treatments, closely resembled the effects of digitalis therapy. It was also discovered that more marked increases in the velocity of blood flow and pulse rate during fever occurred in the patients with luetic heart disease than in patients with an apparently normal heart for approximately similar temperature levels and metabolic rates. It appears from these observations that the response of the cardiovascular system to artificially induced fevers may be utilized as a test of cardiac function.

Three papers embodying some of the results of this work are now ready for publication. They are entitled:

1. Metabolic Rates and Therapeutic Hyperpyrexia.
2. Metabolic Rates in Therapeutic Diathermy Fever.
3. The Velocity of the Blood Flow in Therapeutic Hyperpyrexia.

Miss Charlotte Rosen, working under the direction of Dr. F. C. d'Elseaux, studied the effects on the acid base balance of arterial blood of fever produced by high frequency diathermy current. This study is likewise ready for publication.

These studies have for their *raison d'être* an attempt to understand the mechanism underlying the therapeutic benefits derived from febrile therapy in syphilitic conditions.

Dr. Merrill Moore, who, at present is on a Fellowship of the Commonwealth Fund, has been doing considerable work in relation to the neurosyphilis problem. He has been studying the incidence and symptomatology of the disease in patients who have been in this clinic over a period of years, as well as other statistical data relating to them. Dr. Moore's fellowship will continue until March 1, to which time he will continue the studies already undertaken. It is to be hoped that at the expiration of his fellowship, it will be possible to have him continue his valuable assistance to the Department.

No account of the work of the syphilitic patients can be complete without a mention of the social service department. The best praise for the work done is that in the study of 254 cases of general paresis mentioned above, practically no case was completely lost sight of over a period of years. The following table indicates the technical work done during the year, but gives no indication of the good



relationship between the social worker and the patients, which in a large degree accounts for the continuing contact with the patients over a period of years.

Number of interviews at hospital (minus clinic interviews) . . . . .	290
Number of visits . . . . .	212
Visits to wards . . . . .	58
Visits outside . . . . .	154
Number of telephone conferences . . . . .	1,418
Incoming calls . . . . .	458
Outgoing calls . . . . .	960
Number of letters written . . . . .	1,155

Miss Ruth Epstein, who has been doing the active social service work with the neurosyphilitic patients, has resigned as of November 30, in order to work for a Master's Degree in psychiatric social work. A continuity of the social work in this department will be kept through the supervision of Mrs. Maida H. Solomon. Mrs. Solomon has been appointed Instructor in Social Economy at the Simmons College School of Social Work.

In 1930, Dr. Frank C. d'Elseaux came to the Boston Psychopathic Hospital as a Commonwealth Fellow in Psychiatry. He at once interested himself in the physiological approach to psychiatric problems, beginning with the study of the carbon dioxide problem. Dr. d'Elseaux has continued his activity in studying the psychoses at a physiological level and following the completion of his Commonwealth Fellowship, he received an appointment from the Department of Psychiatry of the Harvard Medical School, and recently has become Chief of the Bio-Chemical Department of the Psychopathic Hospital. As a result of his work, there has been a gradual growth in the research laboratory which has finally culminated this spring and summer in the building of a rather ideal arrangement of laboratories and experimental rooms, with ample space and good equipment, concentrating previously scattered facilities into a single unit. The additional space permits the work of a larger personnel to carry out the complex time-consuming experiments necessary to work up the problems which have grown out of the original carbon dioxide studies.

It is hoped that the increased laboratory facilities will be supplemented by an increase in beds for the study of special problems. A plan has been proposed for certain structural changes on the two wards on the first floor of the hospital whereby additional bed space will be available and a more satisfactory sitting-room for the patients afforded. If this plan is carried out, it will make available a small unit for four or five additional patients who can be studied under carefully supervised conditions without much additional nursing expense.

The problems which have grown out of the original CO<sub>2</sub> problem fall into three major groups:

1. The acid-base balance of the blood, brain, and muscles and the inter-relations of this balance in each of these tissues.
2. The regulation of respiration.
3. Cardio-vascular activity in its relation to respiration.

Much original information concerning the acid-base balance, particularly of the brain, and concerning the part which the different elements of the body play in such adjustments has been obtained. The indicated inter-relations have a rather broad biological significance. Likewise, much pioneer work in the understanding of the regulation of respiration has been done. The text book picture of the functioning of this system is far from adequate. The recent original work of Heymans on the carotid sinus in Belgium and of Adrian in England on the pulmonary vagi has been to a great degree corroborated by these human studies that have been quite a good deal more complete than the majority of physiological investigations (i.e., respiration, circulation, acid-base balance of the brain, muscles, and blood of humans). This work further points to elements in the regulation of respiration which heretofore have not been considered, but which can be studied, thanks to the completeness of the observations. This has been the main *Arbeit* of the laboratory. The part dealing with respiration was reported at the Physiological Congress in New York. The data are gathered into a group of seven papers which are about ready for publication.



Through this work there has been gained a detailed and exact knowledge of the functioning of these systems which offers opportunity not only for comparison of the normal with the psychotic in regard to the activities of these systems, but also offers an opportunity for studying the control exerted over these systems by the autonomic, endocrine, and humoral systems by virtue of the precision and ease of observation of these systems. Through such studies of the changes in systems such as the respiratory system, the autonomic system may be studied.

As side issues of these problems, many data are being collected which throw light on the oxygen transport and utilization mechanisms and the lactic acid metabolism. These will be subsequently reported separately.

Dr. Robert Fleming has been studying the effects of alcohol on the human organism. Financial assistance for this work has been obtained from the Rockefeller Foundation and from the Department of Psychiatry of the Harvard Medical School. Dr. Fleming has received technical assistance from Mr. Elmer Stotz, Miss Dorothy Reynolds, and in the psychological field, from Mr. Nathan Goldman. His work may be briefly described under five headings:

1. The study of the blood and spinal fluid alcohol content after intravenous administration of alcohol. This work has been reported by Mr. Stotz at the physiological conference of the Harvard Medical School on November 20, and the work has been written up for publication as a second paper on "Experimental Studies in Alcoholism".

2. Studies of the factors which determine the blood alcohol curves following the oral and intravenous administration of alcohol. This problem is primarily concerned with the tolerance of alcohol in relation to habituation and the drinking habits of the subjects.

3. The experimental study of acute alcoholic intoxication. In this work the orientation is psychiatric as contrasted with the pharmacological point of view in the first two studies. The effect of alcohol on the response of the subjects to the Rorschach test has been studied and is being written up in conjunction with Dr. Emeline Hayward.

4. Investigation of the effect of alcohol on reaction time and correlation of the blood alcohol level with these effects. Dr. F. Lyman Wells is supervising the psychological part of the study with the active assistance of Mr. Nathan Goldman.

5. An "Alcoholic Club" has been organized as an experiment as a practical therapeutic device to aid in the rehabilitation on a group basis of alcoholic patients after their discharge from the hospital. An attempt is being made to utilize the social and recreational needs of the patients in order to maintain contact with and a certain supervision over patients after discharge. At the same time the therapeutic possibilities are being studied. This clinic has been in operation for five months on an experimental basis. It is desired to determine if this group method is of value and if it is valuable, with what type of patient it may be expected to be successful.

Respectfully submitted,

HARRY C. SOLOMON,

Chief, Dept. Therapeutic Research.

## REPORT OF THE SOCIAL SERVICE DEPARTMENT

To the Medical Director, Boston Psychopathic Hospital

The social service staff remained unchanged until September 1, 1934, when Mrs. Rena Dewey who had been with the department for three years resigned to become head of the Placement Department of the New England Home for Little Wanderers. Her departure was a great loss as the skills she had developed during her term of service were becoming of increasing value to the hospital, especially in the treatment of patients. Before arrangements could be completed to fill her position a second resignation came, on this occasion from Mrs. Helen Spurrier Howard who had been with the department for two years. As a greater part of her time also had been devoted to treatment, in accordance with the plan of the department of having certain workers specialize on certain functions in order to increase the total efficiency, her leaving was another loss. Especially was this realized when attempts were made to fill the vacancies. Due to the great demand on the part of public agencies for trained social workers and of non-psychiatric

agencies for psychiatrically trained workers, there was just a small group available for our positions which are third grade with the correspondingly low salaries. Because of Civil Service complications it was impossible to make appointments when the recent graduates from the schools of social work were available, namely in September. By October, however, both vacancies were filled, fortunately, by workers with state hospital experience. Miss Cynthia Darling had been trained at the Worcester State Hospital and Mrs. Doris Day at the Walter E. Fernald School and the Danvers State Hospital.

In addition to the regular staff there was one student from the Smith School of Social Work, Miss Jane Hashagen, who was here for nine months in fulfillment of her field work training for the degree of Master of Science. Four Bachelor of Science students and one Master of Science student from the Simmons School of Social Work were here on part-time basis. One volunteer worker, Mrs. Jane Wilkinson, was of great assistance in sorting out cases of alcoholics which Miss Hashagen used for her thesis and in making various other studies.

The question has been asked frequently whether there has been any change in the problems presented by children coming to the Out-Patient Department now in comparison with those observed several years ago. With the development of neuropsychiatric departments in general and children's hospitals and the creation of habit clinics children with certain symptoms previously brought to this hospital might now be examined at other units. One of the studies made by Mrs. Wilkinson comprised a statistical accounting of all children under eighteen years of age admitted to the Out-Patient Department in 1923 and in 1933 with reference to the number in each group, the problem for which referred and the intelligence quotient ratings.

It was found that in both the children's and the adolescent groups there were many more problems of stealing and sex offenses in 1933 than in 1923 with no special differences in the other problems, such as enuresis, nail biting, food finickiness, temper tantrums, psychotic tendencies, etc. In fact in the one to fourteen year old group stealing had increased three-fold and sexual problems had doubled, and in the fourteen to seventeen year old group stealing had doubled with a one-third increase in sex offenses. The greater increase in sex offenders was found in thirteen to fourteen year old girls. As there was a slight decrease in the total number of cases, these findings seem to indicate that problems pertaining to stealing and sex are taking the place of problems of low-grade intelligence. Part of this increase may be due to the ruling that all children brought before the juvenile courts have to be examined psychologically before commitment to one of the reformatories.

This last year at a meeting of the Monday Luncheon Club, a club comprised of head workers of various social agencies in Boston, several psychiatric social workers were asked to present studies showing the effect of the depression on psychiatric problems. As her contribution, the worker at this hospital made a study of the admission rate to all the Massachusetts State Hospitals since 1904, the types of psychoses since 1917, the admission rate to the wards of this hospital and the Out-Patient Department since 1921, and a review of 100 consecutive cases admitted to the Out-Patient Department in December of 1933, and January of 1934, with reference to the effect of the economic condition on the main problem which brought the client to the clinic.

The 100 out-patient cases at the Boston Psychopathic Hospital analyzed from the point of view of the part financial stress has played in the production of the problem were divided into three groups. The first comprised those where the problem seemed entirely related to the financial stress; the second, where there was a partial relationship, and the third, where there was none. There were no cases in the first group, about 25 in the second, 60 in the third and 15 unknown. In the second group there were many psychoneurotics. These individuals seemed to have regarded their inability to make a living and support their families as a personal failure which they could not face. There were a number of marital situations in this groups but the incompatibility could not be considered as due to economic pressure as there was considerable warping of the personality long before the depression. In the third group there were a large number diagnosed as having mental disease where the "breakdown" would have come regardless of the financial situation. In the same group there were a number of unmarried mothers where



the financial strain did not seem to be nearly as important as the personality difficulties. Histories indicated that in the total group of one hundred there was a great increase in tension in other members of the family and much less tolerance of patient's peculiarities.

During this year there was exactly the same number of cases sent under regular court commitment as during the preceding year, namely 214 cases with a large additional number who had been sent under informal commitment for which reports were requested by the judge or probation office. Cooperation with the courts sending children has been excellent. In a number of instances social service was able to take over the problem of supervision with good results. The probation officers seem to rely more and more upon the social service department to help them with their work.

There has been good cooperation with the police; for instance, one patient who was discharged as not insane kept making minor infringements of the law. The police were asked to notify the hospital before arresting him so that the matter could be taken up with the patient. They did this willingly.

There has been a great increase in the requests of agencies, especially relief giving agencies, for abstracts of patients who were here a number of years ago.

There were several new features this last year. In the spring of 1934 arrangements were made whereby the House officers at the Norfolk Prison Colony attended a staff conference and a joint lecture by one of the staff physicians and the head social worker on different phases of mental disease, personality deviations and social treatment. The project was so well received that Mr. Mark Roser, Chief Social Worker at the Colony asked for a series of seminars to be conducted this fall. To date there have been three meetings, one by a psychiatrist on personality development, one by a social worker on case treatment and the third by a psychiatrist on sexual development, to the mutual benefit of the participating lecturers and the visiting group.

The bi-weekly staff meetings begun last year have been continued. Three hundred and twenty-five cases recently discharged from the hospital wards were reviewed by the physicians and social workers together, and one hundred and forty-one of these patients were visited by the social workers.

The teaching of medical students on the social component of medicine has been continued.

Again a small sum of money was received from the Junior League of Boston, in place of Christmas greens, which has helped in emergency situations.

I should like to mention especially the excellent work which has been carried on by Miss Annie Porter, clinic manager and Miss M. Carmen Burr, investigator of all court cases.

As in previous years, excellent cooperation has been given this department by all members of the staff.

Respectfully submitted,

ESTHER C. COOK,

*Head Social Worker.*

## SOCIAL SERVICE STATISTICS

(Exclusive of Syphilis Department)

### I. Numerical Summary:

	Male		Female		
	Children	Adults	Children	Adults	
New cases . . . . .	110	296	44	245	695
Renewed from previous year . . . . .	29	39	15	50	133
Continued from previous year . . . . .	16	6	6	17	45
Total . . . . .	155	341	65	312	873
Closed during year . . . . .	125	285	54	242	706
Continued to following year . . . . .	30	56	11	70	167
	155	341	65	312	873



II.	Sources of 695 new cases . . . . .	House	430	Out-Patient	260
	Sources of 45 continued cases . . . . .	House	27	Out-patient	18
	Sources of 133 renewed cases . . . . .	House	16	Out-patient	117
	Totals . . . . .		473		495 868
	Briggs Law . . . . .				5
					873
III.	Analysis of Work on All Cases:				
	Number of histories from single sources . . . . .				76
	Number of investigations from multiple sources . . . . .				330
	Number of patients visited by Social Service . . . . .				296
	Number of visits pertaining to the supervision of patients in the community, either ex-house cases or out-patient cases (does not include visits made during course of investigation) . . . . .				876
	Number of visits to patients on wards . . . . .				177
	Placements by Social Service in foster homes and employment:				
	1. Number placed . . . . .				22
	2. Unable to place . . . . .				15
	Unclassified:				
	Steering for agencies, interpreters, sending applications to feeble-minded schools, etc. . . . .				64
	Telephone discussions with agencies regarding social and psychiatric factors of cases formerly in hospital or Out-Patient Department and sending of social service reports. . . . .				840
IV.	Outstanding Social Problems:				
	Diseases:				
	Mental . . . . .				578
	Physical . . . . .				184
	Personality problems, including temperament, vacillating interests, instability, etc. . . . .				300
	Legal problems, including larceny, forgery, etc. . . . .				186
	Sex problems . . . . .				122
	Environmental:				
	Financial difficulties . . . . .				157
	Employment . . . . .				127
	Marital difficulties . . . . .				136
	Unsuitable surroundings, broken home, friction in the home, physical surroundings inadequate . . . . .				287
	School problems . . . . .				91
	Alcohol . . . . .				40
V.	Miscellaneous:				
	Expense account . . . . .				\$388.87

## REPORT OF THE PRINCIPAL OF SCHOOL OF NURSING

*To the Medical Director of the Boston Psychopathic Hospital:*

I herewith submit the annual report of the nursing department for the year ending November 30, 1934.

Personnel — Principal, School of Nursing, 1; assistant principal, 1; nurse instructor, 1; chief supervisor (male), 1; assistant supervisors, (male), 2; female supervisor (night), 1; head nurse, operating room, 1; head nurses, wards, 8; student nurses, 15; post graduate nurse, 1; hydrotherapist, 2; female attendants, 8; male attendants, 14.

Changes in the graduate nursing staff during the year were as follows — Head Nurses resigned: Mrs. Ann Pichard, Mrs. Anna Ryan, Miss Madeline Peddle, Miss Elizabeth Higgins and Miss Parise Padis. Miss Padis has accepted a position as Superintendent of Nurses of the Hillside Hospital, New York.

Head Nurses appointed: Miss Helen Donnelly, Miss Cecelia Cronin, graduates of Lynn Hospital; Mrs. Helen Quilty, Miss Eleanor Reed, and Miss Helen Rice, graduates of Newton Hospital. These nurses have taken the affiliative course at this hospital.

Forty-eight applications for post graduate courses were received during the year, and we have had requests from hospitals in New York, Chicago, San Francisco, Cleveland and Toronto, Canada, for information regarding affiliation and a syllabus of our course. The Henry Heywood Memorial Hospital, Gardner, Massachusetts, wished to send their students here for affiliation, but we were unable to accept them, as our nurses' quarters are already overcrowded.

We are in our ninth year of affiliation with the Newton, Faulkner, Cambridge and New England Baptist Hospitals; our seventh year with the New England Deaconess Hospital; and our fourth year with the Lynn Hospital. We are fortunate in being able to retain our affiliation with the above mentioned Schools of Nursing, as the minimum educational entrance requirement is four years of classical high school; while the New England Deaconess Hospital requires each student to take a four months course at Simmons College before entering training. We always have one or more students in each group who have received one or two years of college work.

These schools also maintain a high standard of nursing. We are duly impressed by the earnestness and professional ability of these young women. They adapt remarkably well to this difficult branch of nursing; while the basic principles of nursing are the same here, as those taught in general hospitals, yet the technical procedures for dealing with mentally ill patients, if carried out with as little friction as possible, require a great deal of ingenuity and resourcefulness on the part of the nurse.

The Superintendents of our affiliative schools have made an effort to supply us with nurses, because due to economic conditions they are receiving only a limited number of students. They have frequently remarked that a course in mental nursing has had a beneficial effect on the nurses entire training. Of course, not all nurses are adapted to, or adjust well to mental nursing; therefore, the course is elective in most training schools.

The majority of the 418 nurses who have completed the affiliative course here have stated that the success of the course is chiefly due: first, to our staff conferences and ward rounds, where the nurse gets an opportunity to learn something about the underlying difficulties and problems of her patients; the discussions give her a better understanding of the behavior of her patients. She is, therefore, better equipped to meet emergencies in a more tactful manner. Secondly, to the wide range of subjects included in our curriculum, which is not only beneficial to the student in mental nursing but gives her a better understanding of nursing problems in general.

We are deeply indebted to Dr. F. L. Wells for his contribution in Mental Adjustments, to our lecture course; to our medical staff for their skill and patience in presenting difficult subjects in a clear enough manner to be assimilated, and put into practical use by our student nurses; to our Out-Patient, Occupational Therapy and Hydrotherapy Departments, our instructor of nursing, and our ward supervisors; who, by their lectures, demonstrations and supervision have made our affiliative course a success.

Hydrotherapy: tonic baths, number of patients, 271; foot baths, 708; salt glows, 712; electric light baths, 877; saline baths, 107; sitz baths, 104; hot and cold to spine, 67; hot and cold to abdomen, 14; colonic irrigations, 111; massage, 28; needle sprays, 29. Continuous baths, number of patients, 587; number of baths, 1,976; number of hours, 14,334. Wet sheet packs: number of patients, 50; number of packs, 128; number of hours, 367. Out-Patient Department — number of patients, 47; electric light baths, 559; foot baths, 25; salt glows, 42; saline baths, 7; needle sprays, 671; fan douches, 671; jet douches, 564; rain douches, 5.

Instruction in wet sheet packs, continuous baths, was given to 59 student nurses. Number of lessons, 590; number of hours, 698. Instructions in wet sheet packs and continuous baths were given to 16 male attendants, number of lessons, 45; number of hours, 71.

Respectfully submitted,

MARY FITZGERALD, R.N.

*Principal, School of Nursing.*

# REPORT OF THE DEPARTMENT OF OCCUPATIONAL THERAPY To the Medical Director of the Boston Psychopathic Hospital:

During the past year we have received the average number of patients in the department, and have maintained our preliminary work on the women's admitting ward. This preliminary work is considered important in that it serves to establish a friendly contact, and to introduce ideas which we later seek to carry out in the work rooms.

The type of work and its ultimate value are largely governed by the length of time the patient stays. For the most part we are obliged to choose short term projects, and also to produce articles which can be utilized in the hospital.

Through the cooperation of the Boston School of Occupational Therapy a number of students come to us each year for a month's training with mental patients. At the same time they help with the details of the work and contribute fresh interest to the routine.

Another group who come in contact with us are the affiliated nurses, who spend three months of their training period in this hospital. In this department their course of instruction including application of principles to the practical needs of patients covers about twenty hours. A lecture outlining the basis of our work given by the head of the department is included in this course.

For recreation we have continued our holiday dances, and feel that they are a activity well worth while. For the most part, the patients take part in the making of appropriate decorations and seem to enjoy the festivities.

We are pleased to record that a former patient came in to help in the department during the summer months. We would like also to express our appreciation for the services of a Harvard Medical student, who devoted some time to the teaching of clay modeling.

Much credit should be given Miss Maynard, assistant in the department, who, for her sincere and conscientious effort, has contributed ably to the accomplishment of our year's work.

The statistics of the department are as follows:

Attendance — women, average attendance, 14; total enrollment, 631.

Attendants — men, average attendance, 23; total enrollment, 1,008.

Articles made, 1,745. Forms printed, 15,090.

Respectfully submitted,

ALICE E. WAITE, O. T. REG.

Head Occupational Therapist.

## PUBLICATIONS FROM THE CLINICAL SERVICE AND LABORATORIES Schizophrenia. Statistical Studies from the Boston Psychopathic Hospital. 1925-1934. (Collected Reprints).

Beck, S. J. The Rorschach Method and Personality Organization. Balance in Personality. *American Journal of Psychiatry*, 1933, 13, 519-532.

Beck, S. J. and Levy, D. M. The Rorschach Test in Manic-Depressive Psychosis. *American Journal of Orthopsychiatry*, 1934, 4, 31-42.

Beck, S. J. The Rorschach Method and Personality Organization. III. The Psychological and the Social Personality. *American Journal of Orthopsychiatry*, 1934, 4, 290-297.

Bowman, K. M. A Study of the Pre-Psychotic Personality in Certain Psychoses. *Proceedings, Association for Research in Nervous and Mental Disease*, December, 1933, XIV.

Campbell, C. M. Personality and the Psychoses. *Proceedings, Association for Research in Nervous and Mental Disease*, December, 1933, XIV.

Campbell, C. M. The Field of Clinical Psychiatry. Address given at the Annual Meeting of the New York Society for Clinical Psychiatry, Jan. 11, 1934.

Campbell, C. M. Clinical Psychiatry. Reprinted from *The Problem of Mental Disorder*. New York, McGraw-Hill Book Company, Inc., 1934.

Campbell, C. M. Human Personality and the Environment. New York, Mac-Millan Company, 1934.



- Campbell, C. M. Psychiatry from the Standpoint of the General Practitioner. Address given at the Annual Meeting of the Medical Section of the Pennsylvania State Medical Society, October 4, 1934.
- Epstein, S. H. A Diagnosis and Treatment File for Neurosyphilis Clinics. *Am. Journ. Syph. & Neurol.* October, 1934.
- Epstein, S. H. Hyperpyrexia at the Boston Psychopathic Hospital. *New England Journal Med.*, 1934, (in press).
- Epstein, S. H. and McHugh, T. Technical Management in Therapeutic Hyperpyrexia Induced by Diathermy and Electric Blanket. *New England Journ. Med.* 1934, (in press).
- Epstein, S. H. and von Storch, T. J. C. An Improved Apparatus for Encephalography Adaptable to Ventriculography. *Am. Journ. Roentgen.*, 1934, (in press)
- Epstein, S. H. The Hinton Test in Neurosyphilis. *New England Journ. Med.*, 1934, (in press).
- Kopp, Israel. Metabolic Rates in Therapeutic Hyperpyrexia. *Am. Journ. Med. Sc.*, 1934, (in press).
- Kopp, Israel. Metabolic Rates in Diathermy Hyperpyrexia. *Am. Journ. Med. Sc.*, 1934, (in press)
- Merritt, H. H. and Moore, M. Acute Syphilitic Meningitis. *Medicine*, 1934, (in press).
- Moore, M. and Solomon, H. C. Contributions of Haslam, Bayle, and Esmarch and Jensen to the History of Neurosyphilis. *Arch. Neurol. & Psychiat.*, October 1934.
- Solomon, H. C. and Epstein, S. H. The Results of Treatment with Malaria in Association with other Forms of Therapy in a Series of 173 Cases of General Paresis. *Arch. Neurol. & Psychiat.*, 1934, (in press).
- Solomon, H. C. and Epstein, S. H. The Results of Treatment with Tryparsamide in a Series of 81 Cases of General Paresis. *Arch. Neurol. and Psychiat.*, 1934, (in press).

## VALUATION

November 30, 1934  
REAL ESTATE

Land, 2 acres	\$59,300.00
Buildings and Betterments	496,349.30
	<hr/> \$555,649.30
PERSONAL PROPERTY	
Travel, transportation and office expenses	\$6,563.98
Food	1,784.74
Clothing and materials	2,253.71
Furnishings and household supplies	25,149.98
Medical and general care	21,280.02
Heat and other plant operation	825.48
Farm	
Garage and grounds	334.75
Repairs	1,437.44
	<hr/> \$59,630.10
SUMMARY	
Real estate	\$555,649.30
Personal property	59,630.10
	<hr/> \$615,279.40

## FINANCIAL STATEMENT

To the Department of Mental Diseases:

I respectfully submit the following report of the finances of this institution for the year ending November 30, 1934.

## STATEMENT OF EARNINGS

Board of patients	\$9,301.51
Sales:	
Food	\$74.58
Furnishings and household supplies	2.40
Medical and general care	10.00
Repairs ordinary	31.77
Arts and crafts sales	57.61
Service manuals	1.00
Board of private nurse	72.00
Sale of record (charge for copying)	4.00
Total sales	<hr/> 253.36

## Miscellaneous:

Rents . . . . .	268.0
Total earnings for the year . . . . .	7,577.2

## MAINTENANCE APPROPRIATION

Balance from previous year, brought forward . . . . .	\$2,674.7
Appropriation, current year . . . . .	212,930.0

Total . . . . . \$215,604.7

## Expenditures as follows:

1. Personal services . . . . .	\$145,364.32
2. Food . . . . .	23,027.37
3. Medical and general care . . . . .	14,128.78
4. Religious instruction . . . . .	1,142.85
5. Farm . . . . .	—
6. Heat and other plant operation . . . . .	12,073.81
7. Travel, transportation and office expenses . . . . .	4,534.72
8. Garage and grounds . . . . .	327.43
9. Clothing and materials . . . . .	1,120.70
10. Furnishings and household supplies . . . . .	3,588.23
11. Repairs ordinary . . . . .	2,941.47
12. Repairs and renewals . . . . .	920.87

Total maintenance expenditures . . . . . \$209,170.5

Balance of maintenance appropriation, Nov. 30, 1934 . . . . . \$6,434.1

## PER CAPITA

During the year the average number of patients has been, 73.20

Total cost of maintenance, \$209,170.55

Equal to a weekly per capita cost of (52 weeks to year), 54.9523

Total receipts for the year, \$7,577.25

Equal to a weekly per capita of, \$1.9906

Total net cost of Maintenance for year (Total Maintenance less total receipts), \$201,593.30

Net weekly per capita, \$2.9617

Respectfully submitted,

ANNA F. CAULFIELD,

Treasurer.

## STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION PRESCRIBED  
BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

(Data correct at end of institution year November 30, 1934)

1. Date of *opening* as a hospital for mental diseases, June 24, 1912.

2. Type of hospital: State.

3. Hospital plant:

Value of hospital property:

Real estate, including buildings . . . . .	\$555,649.3
Personal property . . . . .	59,630.1

Total . . . . .

\$615,279.4

4. Total acreage of hospital property owned, 2 acres.

Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents . . . . .	1	—	1	—	—	—
Assistant physicians . . . . .	13	3	16	1	—	—
Medical internes . . . . .	2	—	2	—	—	—
Total physicians . . . . .	16	3	19	1	—	—
Resident dentists . . . . .	1	—	1	—	—	—
Graduate nurses . . . . .	2	12	14	—	1	—
Other nurses and attendants . . . . .	16	17	33	—	—	—
Occupational therapists . . . . .	—	2	2	—	—	—
Social workers . . . . .	—	6	6	—	—	—
All other officers and employees . . . . .	25	45	70	2	—	—
Total officers and employees . . . . .	60	85	145	3	1	—

Classification by Diagnosis: (September 30, 1934)

5. Census of patient population at end of year:

	Actually in Hospital			Absent from Hospital but still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane . . . . .	27	32	59	35	20	55
Epileptics . . . . .	—	1	1	—	—	—
Mental defectives . . . . .	1	2	3	—	—	—
Drug addicts . . . . .	—	1	1	—	—	—
All other cases . . . . .	4	3	7	—	—	—
Total . . . . .	32	39	71	35	20	55

## OTHER RACES:

Insane . . . . .	1	2	3	1	-	1
All other cases . . . . .	-	1	1	-	-	-
Total . . . . .	1	3	4	1	-	1
Grand Total . . . . .	33	42	75	36	20	56

M.

F.

T.

6. Patients under treatment in occupational-therapy classes, including physical training, on date of report September 30, 1934 . . . . . 26 15 51
7. Other patients employed in general work of hospital on date of report . . . . . 1 1 2
8. Average daily number of all patients actually in hospital during year . . . . . 43.96 31.47 75.42
9. Voluntary patients admitted during year . . . . . 173 69 242
10. Persons given advice or treatment in out-patient clinics during year . . . . . 515 553 1,068





TABLE 3. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	F.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States <sup>1</sup> . . . .	61	32	93	29	31	23	16	17	13
Australia . . . . .	1	—	1	—	—	—	—	—	—
Canada <sup>2</sup> . . . . .	3	4	7	8	9	4	7	7	6
England . . . . .	2	—	2	7	8	5	4	2	2
France . . . . .	—	—	—	—	—	—	—	1	—
Germany . . . . .	1	—	1	3	2	2	1	1	1
Holland . . . . .	—	—	—	—	—	—	1	1	1
Ireland . . . . .	1	3	4	13	9	9	8	10	7
Italy . . . . .	4	1	5	7	7	7	1	1	1
Norway . . . . .	1	—	1	1	1	1	1	—	—
Poland . . . . .	1	—	1	—	—	—	—	—	—
Russia . . . . .	2	2	4	4	4	4	3	3	3
Scotland . . . . .	1	—	1	2	3	1	—	—	—
Sweden . . . . .	2	—	2	2	2	2	—	—	—
Switzerland . . . . .	—	—	—	—	1	—	—	—	—
Wales . . . . .	—	1	1	—	—	—	—	—	—
West Indies <sup>3</sup> . . . .	2	—	2	2	2	2	—	—	—
Unknown . . . . .	—	1	1	4	3	2	2	1	1
Total . . . . .	82	44	126	82	82	62	44	44	35

<sup>1</sup>(Persons born in Hawaii, Porto Rico and the Virgin Islands should be recorded as born in the United States.)

<sup>2</sup>Includes Newfoundland.

<sup>3</sup>Except Cuba, Porto Rico and Virgin Islands.

TABLE 4. Age of First Admissions Classified with Reference to Nativity, and Length of Residence in the United States of the Foreign Born

AGE GROUPS	NATIVE BORN												FOREIGN BORN					Nativity Unknown	
	Aggregate			PARENTAGE				Total	TIME IN UNITED STATES BEFORE ADMISSION										
				Native	Foreign	Mixed	Unknown		Total	Under 5 years	5-9 years	10-14 years	15 years and over						
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
0-14 years . . .	1	3	1	2	1	3	1	2	3	1	2	3	1	2	3	1	2	3	-
15-19 years . . .	3	3	6	3	3	6	3	3	6	3	3	6	3	3	6	3	3	6	-
20-24 years . . .	9	9	18	9	7	16	3	2	5	4	3	7	2	1	3	4	3	7	-
25-29 years . . .	10	5	15	7	5	12	4	3	7	1	2	2	1	3	5	1	1	3	-
30-34 years . . .	16	4	20	13	3	16	2	1	3	5	2	7	5	1	1	1	1	1	-
35-39 years . . .	8	5	13	6	2	8	2	1	3	1	1	2	3	1	3	2	2	4	-
40-44 years . . .	17	4	21	15	4	19	5	1	6	7	2	9	2	1	3	1	1	1	-
45-49 years . . .	8	4	12	4	3	7	3	1	4	2	1	3	1	2	3	4	1	5	-
50-54 years . . .	5	3	8	1	2	1	1	1	2	-	-	-	1	2	3	4	2	6	-
55-59 years . . .	5	6	11	2	3	5	1	1	2	-	1	1	2	3	6	3	3	6	-
60-64 years . . .	-	1	1	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-
Total . . .	82	44	126	61	32	93	23	13	36	18	11	29	18	8	26	2	1	1	18 10 28



TABLE 5. *Citizenship of First Admissions*

	Male	Female	Total
Citizens by birth	61	32	93
Citizens by naturalization	11	4	15
Aliens	9	6	15
Citizenship unknown	1	2	3
Total	82	44	126

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			With syphilitic meningo-encephalitis			With other forms of syphilis			With epidemic encephalitis			With other infectious diseases			Alcoholic psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	4	—	4	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Dutch and Flemish <sup>1</sup>	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	19	12	31	12	—	12	—	1	1	—	—	—	1	—	1	—	—	—
French	2	1	3	2	—	2	—	1	1	—	—	—	—	—	—	—	—	—
German	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	6	2	8	4	—	4	—	—	—	—	—	—	1	1	—	—	—	—
Irish	18	12	30	7	—	7	—	—	—	1	—	1	—	1	1	1	2	3
Italian <sup>1</sup>	7	1	8	5	—	5	1	—	1	—	—	—	1	1	—	—	—	—
Scandinavian <sup>2</sup>	3	1	4	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	1	1	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	20	11	31	9	—	9	—	—	—	1	—	1	2	2	—	2	—	2
Race unknown	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	82	44	126	45	—	45	1	2	3	2	—	2	1	5	6	3	2	5

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	Due to drugs, etc.			With cerebral arterio-sclerosis			With other disturbances of circulation			With convulsive disorders (epilepsy)			Due to other metabolic diseases, etc.			With organic changes of nervous system		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1
Dutch and Flemish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	1	2	3
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Irish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italian <sup>1</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	2	2	4
Race unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1	2	3	—	1	1	1	1	2	—	1	1	1	—	1	4	4	8

TABLE 6. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Psycho-neuroses			Manic-depressive psychoses			Dementia praecox			Paranoia and paranoid conditions			With psychopathic personality			With mental deficiency			Undiagnosed psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (blk.)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dutch and Flemish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	1	1	2	2	2	4	3	2	5	—	1	1	—	—	—	—	—	—	—	1	1
French	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	—	—	—	1	1	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Irish	1	1	2	1	3	4	5	1	6	1	1	2	—	1	1	—	1	1	2	1	3
Italian <sup>1</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Scandinavian <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic <sup>3</sup>	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	—	—	—	—	—	5	2	7	—	—	—	1	1	—	—	—	—	2	—	2
Race unknown	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5	5	10	4	6	10	15	6	21	1	2	3	2	2	—	1	1	—	3	4	7

<sup>1</sup>Includes "North" and "South".<sup>2</sup>Norwegians, Danes and Swedes.<sup>3</sup>Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			0-14 years			15-19 years			20-24 years			25-29 years			30-34 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	45	—	45	—	—	—	2	—	2	—	—	—	2	—	2	10	—	10
With other forms of syphilis	1	2	3	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
With epidemic encephalitis	2	—	2	—	—	—	—	—	—	1	—	1	1	—	1	—	—	—
With other infectious disease	1	5	6	—	—	—	1	1	—	2	2	—	—	—	—	—	—	—
Alcoholic psychoses	3	2	5	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
Due to drugs, etc.	1	2	3	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
With cerebral arteriosclerosis	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With other disturbances of circulation	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With convulsive disorders (epilepsy)	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Due to other metabolic diseases, etc.	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
With organic changes of nervous system	4	4	8	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Psychoneuroses	—	5	5	—	—	—	—	—	—	2	2	—	1	1	—	—	—	—
Manic-depressive psychoses	4	6	10	—	—	—	—	—	—	2	2	4	—	—	—	2	2	2
Dementia praecox	15	6	21	—	—	—	2	2	5	1	6	6	1	7	3	1	4	4
Paranoia and paranoid conditions	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
With psychopathic personality	—	2	2	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—
With mental deficiency	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Undiagnosed psychoses	3	4	7	—	—	—	1	—	1	—	1	—	2	2	—	1	—	1
Total	82	44	126	1	—	1	3	3	6	9	9	18	10	5	15	16	4	20

TABLE 7. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	35-39 years			40-44 years			45-49 years			50-54 years			55-59 years			60-64 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	7	—	7	12	—	12	6	—	6	3	—	3	3	—	3	—	—	—
With other forms of syphilis	—	—	—	—	—	—	—	1	1	—	—	—	—	1	1	—	—	—
With epidemic encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With other infectious diseases	—	2	2	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Alcoholic psychoses	—	1	1	—	1	1	—	—	—	1	—	1	—	—	—	—	—	—
Due to drugs, etc.	—	1	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
With cerebral arteriosclerosis	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
With other disturbances of circulation	—	—	—	—	—	—	—	—	—	1	1	2	—	—	—	—	—	—
With convulsive disorders (epilepsy)	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Due to other metabolic diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With organic changes of nervous system	1	—	1	—	—	—	1	1	2	—	1	1	1	1	2	—	1	1
Psychoneuroses	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Manic-depressive psychoses	—	—	—	2	1	3	—	—	—	—	—	—	—	1	1	—	—	—
Dementia praecox	—	—	—	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—
Paranoia and paranoid conditions	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	—	—	—
With psychopathic personality	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—
With mental deficiency	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Undiagnosed psychoses	—	—	—	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
Total	8	5	13	17	4	21	8	4	12	5	3	8	5	6	11	—	1	1

TABLE 8. Degree of Education of First Admissions Classified with Reference to Principal Psychoses

PSYCHOSES	Total			Illiterate	Reads Only	Reads and Writes	Common School	High School	College	Unknown	
	Total										
	M.	F.	T.								
With syphilitic meningo-encephalitis	45	-	45	1	1	2	27	12	2	-	-
With other forms of syphilis	1	2	3	-	-	-	1	1	-	-	-
With epidemic encephalitis	2	-	2	-	-	-	1	1	-	-	-
With other infectious diseases	1	5	6	-	-	-	2	1	1	2	-
Alcoholic psychoses	3	2	5	1	1	-	2	1	1	-	-
Due to drugs, etc.	1	2	3	-	-	-	1	1	-	1	-
With cerebral arteriosclerosis	1	1	2	-	-	-	-	-	-	-	-
With other disturbances of circulation	1	1	2	-	-	-	-	-	-	-	-
With convulsive disorders (epilepsy)	1	1	2	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc.	1	1	2	-	-	-	-	-	-	-	-
With organic changes of nervous system	4	4	8	-	-	-	3	1	1	1	-
Psychoneuroses	4	5	9	-	-	-	1	2	3	-	-
Manic-depressive psychoses	4	5	9	-	-	-	3	2	2	1	-
Dementia praecox	4	10	14	1	1	-	3	3	1	1	-
Paranoia and paranoid conditions	15	6	21	-	-	-	5	1	2	-	-
With psychopathic personality	1	2	3	-	-	-	1	1	1	-	-
With mental deficiency	-	1	1	-	-	-	-	2	-	-	-
Undiagnosed psychoses	3	4	7	-	-	-	-	1	-	1	-
Total	82	44	126	2	1	3	43	27	7	5	1



TABLE 9. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			2,500-9,999		10,000-24,999		25,000-49,999		50,000-99,999		100,000-249,999		500,000		Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	45	-	45	5	-	5	6	6	-	6	3	-	6	-	6	18	1	-
With other forms of syphilis . . . . .	1	2	3	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
With epidemic encephalitis . . . . .	2	-	2	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
With other infectious diseases . . . . .	1	5	6	-	-	-	-	1	1	1	-	-	-	2	2	-	-	-
Alcoholic psychoses . . . . .	3	2	5	-	-	-	1	1	-	-	1	-	-	2	1	-	-	-
Due to drugs, etc. . . . .	1	2	3	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-
With cerebral arteriosclerosis . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With other disturbances of circulation . . . . .	1	1	2	-	-	-	1	1	-	-	-	-	-	1	1	-	-	-
With convulsive disorders (epilepsy) . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Due to other metabolic diseases, etc. . . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With organic changes of nervous system . . . . .	4	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psychoneuroses . . . . .	4	5	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manic-depressive psychoses . . . . .	-	6	6	-	-	-	-	3	3	-	1	-	-	3	2	-	-	-
Dementia praecox . . . . .	15	6	21	-	-	-	1	2	-	3	-	1	4	6	4	-	-	-
Paranoia and paranoid conditions . . . . .	1	2	3	1	-	1	1	-	-	-	-	-	1	1	10	-	-	-
With psychopathic personality . . . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With mental deficiency . . . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Undiagnosed psychoses . . . . .	3	4	7	-	-	-	1	1	-	1	-	-	-	-	-	1	1	1
Total . . . . .	82	44	126	6	-	6	8	8	16	10	5	15	14	5	19	35	20	55

TABLE 10. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Dependent			Marginal		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	45	—	45	4	—	4	41	—	41
With other forms of syphilis . . . . .	1	2	3	—	—	—	1	2	3
With epidemic encephalitis . . . . .	2	—	2	—	—	—	2	—	2
With other infectious diseases . . . . .	1	5	6	—	—	—	1	5	6
Alcoholic psychoses . . . . .	3	2	5	1	—	1	2	2	4
Due to drugs, etc. . . . .	1	2	3	—	—	—	1	2	3
With cerebral arteriosclerosis . . . . .	—	1	1	—	—	—	—	1	1
With other disturbances of circulation . . . . .	1	1	2	—	—	—	1	1	2
With convulsive disorders (epilepsy) . . . . .	—	1	1	—	1	1	—	—	—
Due to other metabolic diseases, etc. . . . .	1	—	1	—	—	—	1	—	1
With organic changes of nervous system . . . . .	4	4	8	1	1	2	3	3	6
Psychoneuroses . . . . .	—	5	5	—	1	1	—	4	4
Manic-depressive psychoses . . . . .	4	6	10	—	—	—	4	6	10
Dementia praecox . . . . .	15	6	21	1	2	3	14	4	18
Paranoia and paranoid conditions . . . . .	1	2	3	—	1	1	1	1	2
With psychopathic personality . . . . .	—	2	2	—	—	—	—	2	2
With mental deficiency . . . . .	—	1	1	—	—	—	—	1	1
Undiagnosed psychoses . . . . .	3	4	7	—	—	—	3	4	7
Total . . . . .	82	44	126	7	6	13	75	38	113

TABLE 11. *Use of Alcohol by First Admission Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	45	—	45	18	—	18	23	—	23	4	—	4	—	—	—
With other forms of syphilis . . . . .	1	2	3	1	2	3	—	—	—	—	—	—	—	—	—
With epidemic encephalitis . . . . .	2	—	2	2	—	2	—	—	—	—	—	—	—	—	—
With other infectious diseases . . . . .	1	5	6	—	4	4	1	1	2	—	—	—	—	—	—
Alcoholic psychoses . . . . .	3	2	5	—	—	—	—	—	—	3	2	5	—	—	—
Due to drugs, etc. . . . .	1	2	3	—	—	—	1	2	3	—	—	—	—	—	—
With cerebral arteriosclerosis . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	1	1	—
With other disturbances of circulation . . . . .	1	1	2	—	1	1	1	—	1	—	—	—	—	—	—
With convulsive disorders (epilepsy) . . . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
Due to other metabolic diseases, etc. . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
With organic changes of nervous system . . . . .	4	4	8	2	4	6	2	—	2	—	—	—	—	—	—
Psychoneuroses . . . . .	—	5	5	—	3	3	—	2	2	—	—	—	—	—	—
Manic-depressive psychoses . . . . .	4	6	10	2	4	6	1	2	3	1	—	1	—	—	—
Dementia praecox . . . . .	15	6	21	11	4	15	3	2	5	1	—	1	—	—	—
Paranoia and paranoid conditions . . . . .	1	2	3	—	2	2	1	—	1	—	—	—	—	—	—
With psychopathic personality . . . . .	—	2	2	—	1	1	—	—	—	1	1	—	—	1	1
With mental deficiency . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	1	—	1
Undiagnosed psychoses . . . . .	3	4	7	—	3	3	2	1	3	—	—	—	1	—	1
Total . . . . .	82	44	126	36	29	65	36	10	46	9	3	12	1	2	3





TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1934, All Cases in Residence and All Cases Out on September 30, 1934, by Status of Admission and Sex.*

MENTAL DISORDERS	ALL ADMISSIONS <sup>1</sup>			ALL DISCHARGES <sup>1</sup>			ALL DEATHS		RESIDENT POPULATION		PATIENTS OUT ON VISIT						
	First Admissions	Readmissions	M. F. T.	First Admissions	Readmissions	M. F. T.	First Admissions	Readmissions	M. F. T.	First Admissions	Readmissions	M. F. T.					
<i>Psychoses due to or Associated with Infection:</i>																	
Syphilis of the Central Nervous system:																	
Meningo-encephalitic type (general paresis)	71	17	88	11	3	14	33	18	51	8	2	10	3	1	1	1	1
Meningo-vascular type (cerebral syph.)	9	2	11	—	1	1	8	—	8	—	1	1	—	—	—	—	—
Other types	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—
With epidemic encephalitis	2	2	4	1	1	2	—	2	2	1	1	2	—	—	—	—	—
With acute chorea (Sydenham's)	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
With other infectious disease	6	14	20	—	1	1	4	9	13	—	—	—	2	1	—	—	—
Post-infectious psychoses	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—
<i>Psychoses due to Intoxication:</i>																	
Due to Alcohol:																	
Pathological intoxication	8	—	8	—	—	—	8	—	8	—	—	—	—	—	—	—	—
Delirium tremens	29	5	34	4	1	5	25	5	30	3	1	4	3	—	—	—	—
Kwasiorkow's psychosis	2	3	5	—	—	—	—	2	2	—	—	—	2	—	—	—	—
Acute hallucinosis	47	9	56	10	5	15	46	9	55	10	5	15	3	3	—	—	—
Other types	46	9	55	17	4	21	46	8	54	17	3	20	—	—	—	—	—
Due to drugs or other exogenous poisons:																	
Due to metals	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—
Due to opium and derivatives	—	—	—	1	1	—	10	7	17	4	1	5	—	—	—	—	—
Due to other drugs	8	8	16	4	1	5	—	—	—	—	—	—	—	—	—	—	—
<i>Psychoses due to Trauma:</i>																	
Traumatic delirium	4	2	6	3	—	3	4	2	6	2	—	2	1	—	—	—	—
Post-traumatic personality disorders	3	1	4	—	—	—	4	1	5	—	—	—	—	—	—	—	—
<i>Psychoses due to disturbances of Circulation:</i>																	
With cerebral arteriosclerosis	10	6	16	1	3	4	9	7	16	1	3	4	—	—	—	—	—
With cardio-renal disease	3	7	10	—	—	—	2	6	8	—	—	—	1	2	3	—	—
Other types	1	2	3	—	1	1	1	2	3	—	1	1	—	—	—	—	—
<i>Psychoses due to Conulsive Disorders (epilepsy):</i>																	
Epileptic deterioration	2	5	7	6	3	9	2	4	6	7	3	10	—	—	—	—	—
Epileptic clouded states	2	—	2	9	2	11	2	1	3	7	2	9	—	—	—	—	—
Other epileptic types	1	2	3	—	1	1	2	1	3	—	1	1	—	—	—	—	—

TABLE 13. *Mental Disorders of All Admissions, All Discharges, All Deaths, 1934, All Cases in Residence and All Cases Out on September 30, 1934, by Status of Admission and Sex — Continued*

MENTAL DISORDERS	ALL ADMISSIONS <sup>1</sup>			ALL DISCHARGES <sup>1</sup>			ALL DEATHS		RESIDENT POPULATION		PATIENTS OUT ON VISIT	
	First Admissions		Read-missions	First Admissions		Read-missions	First Admissions	Read-missions	First Admissions	Read-missions	First Admissions	Read-missions
	M. F.	T.		M. F.	T.							
<i>Psychoses due to disturbances of Metabolism, Growth, Nutrition, or Endocrine Function:</i>												
Senile psychoses:												
Simple deterioration . . . . .	1	2	3	1	1	1	2	3	1	1	—	—
Presbyphrenic type . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Paranoid types . . . . .	1	—	1	—	—	—	—	—	1	1	—	—
Involuntional psychoses:												
Melancholia . . . . .	9	13	22	2	1	3	10	13	23	—	1	1
Paranoid types . . . . .	5	5	—	—	—	—	5	3	—	2	—	—
Other types . . . . .	2	2	—	1	1	1	3	—	—	1	—	—
With diseases of the endocrine glands .	4	4	—	—	—	—	4	4	—	—	—	—
With other somatic diseases . . . .	2	7	9	—	3	3	1	9	10	—	1	1
<i>Psychoses due to new growth:</i>												
With intracranial neoplasms . . . .	1	1	2	—	1	1	2	1	3	—	—	—
With other neoplasms . . . . .	3	—	3	—	—	—	—	—	—	—	—	—
With other brain or nervous diseases	33	19	52	5	4	9	28	15	43	7	4	11
<i>Disorders of Psychogenic Origin or Without Clearly Defined Tangible Cause or Structural Change:</i>												
Psychoneuroses:												
Anxiety hysteria . . . . .	3	1	4	1	—	1	2	1	3	1	—	1
Conversion hysteria:												
Paralytic type . . . . .	—	1	1	—	—	—	—	—	—	—	—	—
Hyperkinetic type . . . . .	1	9	—	—	1	1	8	—	1	—	—	—
Paresthetic type . . . . .	1	3	4	1	1	1	1	2	3	1	—	—
Autonomic type . . . . .	—	3	3	—	1	1	2	2	2	—	1	1
Amnesic type . . . . .	1	2	3	—	1	1	1	2	3	—	—	—
Mixed hysterical psychoneurosis .	2	5	7	—	2	5	7	—	—	1	1	—
Psychasthenia or compulsive states:												
Obsession . . . . .	4	2	6	3	1	4	4	2	6	3	1	4
Compulsive tics and spasms . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Phobia . . . . .	2	1	3	—	—	—	3	1	4	1	—	—
Mixed compulsive states . . . . .	1	1	2	—	—	—	1	1	2	—	—	—
Neurasthenia . . . . .	3	3	6	—	1	1	5	4	9	—	—	—
Hypochondriasis . . . . .	3	6	9	1	1	2	3	5	8	2	1	3
Reactive depression . . . . .	9	12	21	—	4	4	9	11	20	—	2	2





TABLE 14. *Discharges of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	10	—	10	—	—	—	9	—	9	1	—	1
With other infectious diseases . . . . .	1	—	1	—	—	—	1	—	1	—	—	—
Alcoholic psychoses . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
Due to drugs, etc. . . . .	3	—	3	2	—	2	1	—	1	—	—	—
With cerebral arteriosclerosis . . . . .	—	2	2	—	—	—	—	2	2	—	—	—
With other disturbances of circulation . . . . .	—	2	2	—	—	—	—	2	2	—	—	—
Due to other metabolic diseases, etc. . . . .	—	2	2	—	1	1	—	1	1	—	—	—
Psychoneuroses . . . . .	—	1	1	—	—	—	—	1	1	—	—	—
Manic-depressive psychoses . . . . .	—	8	8	—	3	3	—	4	4	—	1	1
Dementia praecox . . . . .	4	1	5	—	—	—	3	—	3	1	1	2
With mental deficiency . . . . .	—	1	1	—	—	—	—	—	—	—	1	1
Undiagnosed psychoses . . . . .	1	4	5	1	1	2	—	3	3	—	—	—
Total . . . . .	19	22	41	3	5	8	14	14	28	2	3	5

TABLE 15. *Hospital Residence during This Admission of Court First Admissions Discharged during 1934*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis . . . . .	10	—	10	.29	—	.29
With other infectious diseases . . . . .	1	—	1	.04	—	.04
Alcoholic psychoses . . . . .	—	1	1	—	.29	.29
Due to drugs, etc. . . . .	3	—	3	.07	—	.07
With cerebral arteriosclerosis . . . . .	—	2	2	—	.12	.12
With other disturbances of circulation . . . . .	—	2	2	—	.04	.04
Due to other metabolic diseases, etc. . . . .	—	1	1	—	.12	.12
Psychoneuroses . . . . .	—	1	1	—	.29	.29
Manic-depressive psychoses . . . . .	—	8	8	—	.66	.66
Dementia praecox . . . . .	4	—	4	.29	—	.29
With mental deficiency . . . . .	—	1	1	—	.12	.12
Undiagnosed psychoses . . . . .	1	4	5	.20	.18	.19
Total . . . . .	19	20	39	.24	.36	.30

TABLE 16. *Causes of Death of Patients Classified with Reference to Principal Mental Disorders*

CAUSES OF DEATH	Total			With syphilitic meningo-encephalitis			With other infectious diseases			With other disturbances of circulation			With organic changes of nervous system		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>Diseases of the Nervous System and Organs of Special Sense:</i>															
Cerebral hemorrhage . . . . .	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—
<i>Diseases of the Circulatory System:</i>															
Acute endocarditis . . . . .	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
<i>Diseases of the Respiratory System:</i>															
Bronchopneumonia (including capillary bronchitis) . . . . .	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
Lobar pneumonia . . . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
<i>Diseases of the Skin and Cellular Tissue</i> . . . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1
Total . . . . .	3	2	5	1	—	1	1	1	2	1	—	1	—	1	1

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			30-34 years			35-39 years			55-59 years			60-64 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
syphilitic meningo-encephalitis	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-
With other infectious diseases	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
Alcoholic psychoses	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
With other disturbances of circulation	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-
With organic changes of nervous system	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1
Total	3	2	5	1	-	1	-	1	1	2	-	2	-	1	1

TABLE 18. *Total Duration of Hospital Life of Patients Dying in Hospital Classified According to Principal Psychoses*

PSYCHOSES	Total			Less than 1 Month			1-3 months			4-7 Months		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	1	-	1	-	-	-	-	-	-	1	-	1
With other infectious diseases	-	1	1	-	1	1	-	-	-	-	-	-
Alcoholic psychoses	1	-	1	1	-	1	-	-	-	-	-	-
With other disturbances of circulation	1	-	1	1	-	1	-	-	-	-	-	-
With organic changes of nervous system	-	1	1	-	-	-	-	1	1	-	-	-
Total	3	2	5	2	1	3	-	1	1	1	-	1

TABLE 19. *Average Length of Hospital Residence during the Present Admission of All First Admissions in Residence on September 30, 1934*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	9	1	10	.45	.45	.45
With other infectious diseases	2	-	2	.45	-	.45
Alcoholic psychoses	-	3	3	-	.45	.45
Due to drugs, etc.	1	-	1	.45	-	.45
With cerebral arteriosclerosis	1	-	1	.45	-	.45
With convulsive disorders (epilepsy)	-	1	1	-	.45	.45
Senile psychoses	1	-	1	.45	-	.45
With organic changes of nervous system	1	-	1	.45	-	.45
Psychoneuroses	1	3	4	.45	.45	.45
Manic-depressive psychoses	1	3	4	.45	.45	.45
Dementia praecox	5	9	14	.45	.45	.45
With psychopathic personality	-	4	4	-	.45	.45
Undiagnosed psychoses	1	2	3	.45	.45	.45
Without psychoses	4	6	10	.45	.45	.45
Primary behavior disorders	1	1	2	.45	.45	.45
Total	28	33	61	.45	.45	.45

TABLE 19A. *Average Length of Hospital Residence during the Present Admission of All Readmissions in Residence on September 30, 1934*

PSYCHOSES	Number			Average Net Hospital Residence in Years		
	M.	F.	T.	M.	F.	T.
With syphilitic meningo-encephalitis	2	-	2	.45	-	.45
Alcoholic psychoses	2	-	2	.45	-	.45
Senile psychoses	1	-	1	.45	-	.45
Manic-depressive psychoses	-	4	4	-	.45	.45
Dementia praecox	-	1	1	-	.45	.45
Undiagnosed psychoses	-	3	3	-	.45	.45
Without psychoses	-	1	1	-	.45	.45
Total	5	9	14	.45	.45	.45

